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Analysis and
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The Evaluation of the Alabama Food Stamp Cash-Out Demonstration

Volume I: Recipient Impacts

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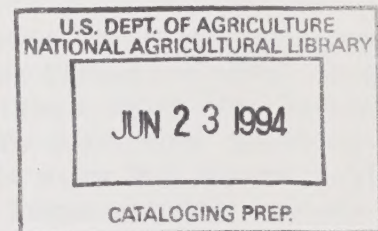
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**THE EVALUATION OF THE ALABAMA
FOOD STAMP CASH-OUT DEMONSTRATION:**

VOLUME I

RECIPIENT IMPACTS

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GLOSSARY OF ABBREVIATIONS

AFDC	Aid to Families with Dependent Children
AME	Adult Male Equivalents (a measure of household size, scaled to take into account different nutritional requirements due to differences in age, gender, and pregnancy and lactation status)
ASSETS	Alabama State's welfare reform program, Avenues of Self Sufficiency through Employment Training Services
ATP	Authorization-To-Participate card (a card issued by county food stamp offices in Alabama and signed by clients that contains the specifications of coupon issuance for each client)
DHR	Alabama Department of Human Resources
EBT	Electronic Benefits Transfer (an alternative form of food stamp benefit issuance)
ENU	Equivalent Nutrition Units (a measure of household size, scaled to take into account different nutritional requirements due to differences in age, gender, pregnancy and lactation status, and numbers of meals eaten at home)
FCU	Food Consumption Unit (the household members who eat meals together)
FIP	Washington State's welfare reform program, Family Independence Project
FNS	U.S. Department of Agriculture, Food and Nutrition Service
FSP	Food Stamp Program
HH	Household
ID	Identification
MPC	Marginal Propensity to Consume (the increase in food purchases resulting from a \$1.00 increase in income or in food stamp benefits)
MPR	Mathematica Policy Research, Inc.
NSLP	National School Lunch Program
RDA	Recommended Dietary Allowance (the daily consumption level of a nutrient believed to be sufficient for good health for most persons; it varies by age and gender)
SBP	School Breakfast Program
SSI	Supplemental Security Income

TFP	Thrifty Food Plan (used as the basis for setting levels of Food Stamp Program benefits)
UI	Unemployment Insurance
USDA	U.S. Department of Agriculture
WIC	Special Supplemental Food Program for Women, Infants, and Children

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EXECUTIVE SUMMARY

The Alabama Food Stamp Cash-Out Demonstration took place in 12 of Alabama's 67 counties during the period May through December, 1990. Under the demonstration, a small percentage of randomly selected food stamp recipients received their program benefits in the form of checks, rather than in the traditional coupon form. This report describes the impacts of the demonstration on the food-purchasing and food-use patterns of Food Stamp Program (FSP) recipients. It also describes the planning and implementation of the demonstration and assesses the impacts of cash-out on the costs of administering the FSP.

POLICY CONTEXT

The form of the benefits provided under the FSP has been an issue of long-standing debate. Advocates of the current coupon system argue that coupons are a direct and inexpensive way to ensure that food stamp benefits are used to purchase food. They contend that, despite some evidence of fraud and benefit diversion under the current system, the unauthorized use of food stamps is relatively limited. In addition, they contend that coupons provide some measure of protection to food budgets from other demands on limited household resources.

Advocates of cashing out food stamp benefits argue that the current system limits the food-purchasing choices of recipients and places a stigma on participation in the program. Moreover, they cite the cumbersome nature and cost of coupon issuance, transaction, and redemption.

The current debate about the desirability of one form of food stamp benefit over the other is limited by the paucity of available empirical evidence comparing coupon and cash food benefits. The U.S. Department of Agriculture, Food and Nutrition Service (FNS) conducted two studies in the early 1980s: (1) the evaluation of the Supplemental Security Income/Elderly Cash-Out Demonstration, and (2) the evaluation of Puerto Rico's Nutrition Assistance Program. Although both studies produced useful findings, they examined cash-out as applied to highly atypical food stamp populations--in the first instance, to elderly participants in the program, and, in the second, to participants in Puerto Rico, whose incomes are very low relative to those of participants in the mainland United States. Thus, the results of those studies could not be reliably generalized to the broader food stamp caseload.

Therefore, it is important to obtain additional information about the effects of cash-out, so as to better inform the policy debate. The Alabama Food Stamp Cash-Out Demonstration has been designed to allow a rigorous evaluation of the effects of cash-out. The Alabama demonstration is one of four tests of the cash-out approach that FNS has undertaken since 1989. The other three are: (1) the Washington State Family Independence Program (FIP), (2) the Alabama Avenues to Self-Sufficiency through Employment and Training Services (ASSETS) Demonstration, and (3) the San Diego Food Stamp Cash-Out Demonstration.

The Washington State FIP and the Alabama ASSETS demonstrations are testing cash-out in conjunction with other changes in the welfare systems in those states. However, the Alabama Food Stamp Cash-Out Demonstration, like the San Diego demonstration, is testing cash-out without any other changes. Therefore, it is of particular interest to compare the latter two evaluations. This report provides a number of such comparisons.

THE TIMING OF THE DEMONSTRATION

The Alabama Food Stamp Cash-Out Demonstration was implemented in two urban and ten rural counties in May of 1990. In those counties, approximately 4 percent of the existing caseload and 4 percent of new cases that entered the FSP over the course of the demonstration were randomly selected to receive benefits in the form of checks. December of 1990 was the last month in which cash benefits were issued under the demonstration. As of the date of this report, Alabama continues to issue cash benefits to food stamp recipients in three counties under the separate ASSETS Demonstration.

THE SETTING OF THE DEMONSTRATION

Alabama has a population of 4 million people. On average, those people are more likely to reside in rural areas than is true for the population of the United States as a whole. In addition, residents of Alabama are more likely to be unemployed or to have low incomes than is the case nationwide; Alabama's unemployment rate is one-third higher, and its average per capita income is 20 percent lower, than are those of the United States as a whole.

Alabama's low-income population depends heavily on food stamps. In 1989, 11 percent of the residents of Alabama received food stamps; only six states and the District of Columbia had higher proportions of residents receiving food stamps. At \$146 in July of 1989, the average household food stamp benefit in Alabama was 10 percent higher than the \$135 average in the United States as a whole. This difference is due, in part, to low levels of cash assistance benefits in Alabama. General Assistance is not available in Alabama, and Aid to Families with Dependent Children (AFDC) provides low benefit levels; in 1990, Alabama's maximum monthly AFDC payment of \$118 for a three-person family was the lowest in the nation. Compared with food stamp households nationwide, a higher proportion of food stamp households in Alabama earn income, but the average amount of earned income is relatively low. In addition, food stamp households in Alabama are 60 percent more likely than food stamp households nationwide to be elderly.

These characteristics of Alabama and of those of its residents who are served by the FSP should be kept in mind when assessing the findings from the Alabama Food Stamp Cash-Out Demonstration and when attempting to generalize from those findings to other areas of the United States. The many large differences between food stamp households in Alabama and elsewhere (including other rural states and states with low AFDC benefits) suggest that the Alabama findings might generalize poorly to many other states. These factors highlight the importance of considering the Alabama findings jointly with the findings from the other contemporaneous cash-out evaluations.

RESEARCH QUESTIONS AND OUTCOME VARIABLES: RECIPIENT IMPACTS

This report addresses questions pertaining to the impacts of cash-out on recipients of food stamp benefits and on the administration of the FSP. The research questions and methodologies pertaining to the impacts of cash-out on food stamp recipients are identical in the evaluations of the Alabama and San Diego Food Stamp Cash-Out Demonstrations. They are as follows:

Does cash-out lead to reductions in the money value of food used at home? The regular coupon-based FSP provides benefits that, in general, can legally be used to purchase food only at authorized outlets, and to purchase only those items that are eligible under program regulations. This

earmarking of benefits is intended to further the stated objective of the FSP of "raising the levels of nutrition among low-income households" by encouraging recipient households to purchase food for use at home. Thus, the program's direct impact is expected to be on the amounts of food purchased for use at home. The analysis presented in this report examines the effects of cash-out on the money value of purchased food used at home in order to obtain direct evidence as to whether cash-out reduces the means (that is, the use of purchased food at home) through which the FSP is expected to affect nutrition.

The principal outcome measure in the analysis of the money value of purchased food used at home is based on detailed survey data on the use of food at home by households during the seven days that preceded a survey conducted as part of the evaluation. In some components of the analysis, we adjust this measure for differences in household size and composition by dividing the money value of food used by the number of "adult male equivalent" (AME) persons in the household. This measure states a household's size in terms of the number of adult males that would be expected to consume the same amount of food as the household would be expected to consume, given its age and gender composition. We also use a second adjusted measure of household size, the number of "equivalent nutrition units" (ENUs), which further adjusts a household's size to control for the percentage of all meals that its members eat from the home food supply.

The analysis also examines effects on the money value of *all* food used at home, including both purchased food and nonpurchased food. Although spending food coupons and food checks can *directly* affect the use of purchased food only, cash-out might have *indirect* effects on the use of nonpurchased food by making households more likely to use food received through government commodity distribution programs, food received from food pantries or other charitable organizations, food received as gifts from friends and relatives, or home-produced food. Therefore, it is important to assess not only the effects of cash-out on purchased food used at home, but also its effects on all food used at home.

The outcome measures for the analysis of the money value of all food used at home are drawn from the same survey as were the outcome measures described previously. They include measures adjusted for household age and gender composition, as well as for the percentage of meals eaten at home. We estimated the dollar value of nonpurchased food used by a household by using imputed prices; the imputed prices were the average values of the reported prices of similar food items that had been purchased by the households participating in the survey.

Does cash-out lead to reductions in the nutrients available to household members? To the extent that cash-out leads to reductions in the use of food at home, there might be associated reductions in the nutrients available to household members. For both check households and coupon households, we examine the average levels of nutrient availability in relation to the recommended dietary allowances (RDAs) for key nutrients.

Does cash-out lead households to run out of food? Critics of food stamp cash-out have been concerned that, under this form of benefit issuance, households might spend their benefits on nonfood products and services and, consequently, might run out of food by the end of each month. It is important to assess whether households ran out of food in the Alabama Food Stamp Cash-Out Demonstration. The analysis is based largely on the reported perceptions of respondents to the household survey regarding the adequacy of the food available to their households in the month preceding the survey.

Does cash-out lead households to switch to food purchased and used away from home? In general, coupon benefits cannot be used in restaurants. However, cash benefits can be used to purchase food in any location. Therefore, it is of interest to consider whether cash-out leads households to switch their food expenditures from food used at home to food purchased and used away from home. We examine this issue by analyzing both the money value of food purchased away from home and the share of all food expenditures accounted for by food used away from home.

Does cash-out result in shifts of spending to nonfood consumption categories? To the extent that cash-out leads to reduced expenditures for food, it might lead to increased expenditures for other types of consumption items. To examine this issue, the study analyzes the shares of expenditures for all major categories of consumer goods and services.

What are the attitudes of program participants toward cash-out? A full assessment of the cash-out approach to food stamp benefit issuance must consider how program participants perceive check benefits relative to coupon benefits. Of particular interest are participants' attitudes toward the relative flexibility of check benefits and toward the potential food-budgeting problems created by the use of checks. We use survey and focus group data to examine these issues.

What experiences have clients had when cashing food stamp checks? It is important to assess whether the value of food stamp benefits to program participants is significantly eroded by any fees that clients might have to pay in order to cash their checks. We use the survey data to examine this and other possible difficulties in the check-cashing process.

RESEARCH QUESTIONS AND OUTCOME VARIABLES: ADMINISTRATIVE OUTCOMES

The Alabama demonstration provided cash benefits to only four percent of the food stamp caseload in 12 out of 67 counties, whereas the San Diego demonstration provided cash benefits to all food stamp recipients after an initial period of providing cash benefits to 20 percent of the caseload. As a consequence of these design differences, the San Diego demonstration can support a more comprehensive analysis of the impacts of cash-out on administrative outcomes. This report addresses the following research questions pertaining to the impacts of cash-out in Alabama on FSP administrative outcomes.

What tasks and staff were involved in planning and implementing the Alabama Food-Stamp Cash-Out Demonstration? Analyzing the process of planning, implementing, and operating cash-out in Alabama aids in understanding the demonstration's impact on recipient behaviors, administrative costs, and losses. The process analysis also aids in assessing the degree to which the Alabama experience can be generalized to other states, and the potential usefulness of the demonstration experience for developing future policy. This analysis is based on Alabama Department of Human Resources documents and on interviews with program staff.

Does switching from coupons to checks reduce benefit-issuance costs? If so, do the savings accrue to the state government or to the federal government? A major impetus behind the interest in food stamp cash-out is an expected savings in administrative costs through the streamlining of benefit issuance. Switching from coupons to checks eliminates or reduces some issuance activities and costs, but creates or increases others. We use time estimates provided by program staff and data on other resources used in issuance to estimate the savings and cost increases, identify the levels of government at which the savings and costs occur, and arrive at an overall picture of the impacts of cash-out on issuance costs at the federal and state levels of government.

Does switching from coupon issuance to check issuance reduce or increase the incidence or amount of benefit loss, and in what specific areas? Loss of benefits can occur through theft during coupon production, shipment, and storage; overissuances due to clerical error; and excessive issuance due to the fraudulent use of authorization-to-participate cards. We assess the impact of the Alabama Food Stamp Cash-Out Demonstration on these types of losses by examining program data on reported losses, supplemented with narrative material from focus group discussions with FSP participants. Our findings include estimates of the amounts of loss borne by the state and federal governments, food stamp recipients, and third parties, and of how those losses changed under cash-out.

DATA COLLECTION

The findings on recipient impacts that we present in this report are based largely on data obtained from an in-person survey of 1,255 check recipients and 1,131 coupon recipients that we conducted between August and November of 1990. Of the responding households, 48 percent resided in the demonstration's two urban counties, and 52 percent resided in the demonstration's ten rural counties, thus closely approximating the 46 percent/54 percent urban/rural distribution of the entire food stamp caseload in Alabama.

The recipient survey obtained detailed information on household composition and income receipt. It also collected very extensive data on the foods used by each household during the seven days preceding the interview. In the survey, respondents were also asked questions about their households' attitudes toward and experiences with cash-out. The survey attained a response rate of 78 percent (80 percent among check recipients; 76 percent among coupon recipients) for the questions on household composition, income, and attitudes, and a rate of 75 percent (78 percent among check recipients; 73 percent among coupon recipients) for the questions on food use.

To supplement the recipient survey data, we also draw on information obtained during four focus group discussions with FSP participants. The discussions were held in one urban site (the city of Birmingham, in Jefferson County) and in one rural site (the town of Fayette, in Fayette County) with participants who had previously received their benefits as coupons, but whose benefit form had been converted to checks. Two sessions were held at each site, one with elderly program participants, and one with nonelderly participants. The focus groups enabled us to explore issues related to client experiences with cash-out in greater depth than was possible in the structured survey.

The findings on administrative outcomes that we present in this report are based on information obtained through in-person and telephone interviews with county-level and state-level FSP staff in Alabama, telephone interviews with representatives of advocacy groups, a mail survey of FSP staff who had handled check-issuance problems, and data compiled or tabulated by FSP staff. We supplement these sources with information obtained from program procedures manuals, official periodic reports on program operations, and other material. Some information was obtained from the focus group discussions with FSP participants. Federal-level issuance costs were obtained from an evaluation of a demonstration of the electronic transfer of food stamp benefits (Kirlin et al., 1990).

FINDINGS FROM THE ANALYSIS OF RECIPIENT IMPACTS

The evaluation of the Alabama Food Stamp Cash-Out Demonstration has produced little evidence of any effect of cash-out on food stamp recipients in Alabama. For almost all outcome

measures corresponding to the study's research questions on recipient impacts, the difference in mean values between check recipients and coupon recipients is small in an economic or nutritional sense and is not significantly different from zero in a statistical sense. This section summarizes the key findings of the study concerning each of the previously highlighted research questions on recipient impacts.

The money value of food used at home. The evidence from the household survey indicates that cash-out did not lead to a reduction in the money value of food used at home. As shown in Table 1, the mean weekly value of purchased food used at home (the measure of food use that is most directly affected by the FSP) is \$54.85 for coupon recipients and \$55.46 for check recipients. The 1 percent difference in mean values is not statistically significant. This finding of no reduction in the money value of food used at home under cash-out holds regardless of whether the outcome measure includes only purchased food or includes all food used at home, and regardless of whether the measure is scaled by ENUs to adjust for differences in household composition and differences in the percentage of meals eaten at home.

There is no evidence from this study that the absence of negative impact of cash-out on the money value of food used at home by all food stamp households is masking a negative impact on the subset of food stamp households that are at greatest nutritional risk. A comparison of check and coupon households in the lower tail of the cumulative distribution of the money value of food used at home per ENU revealed that cash-out had virtually no effect on the use of food by those households.

Nutrient availability. For food energy, protein, and seven micronutrients that are regarded as potentially problematic from a public health perspective, the estimated effects of the demonstration on availability from food used at home are small, ranging from 0 percent to 3 percent, and mixed in sign (Table 2). These small and statistically insignificant differences between check and coupon recipients support the conclusion that cash-out did not result in a reduction in nutrient availability. Data from the demonstration on the percentages of households for which the availability of these nutrients equals or exceeds the RDAs also support this conclusion. For example, the availability of food energy from food used at home was less than the RDA for 20 percent of both check and coupon households.

Running out of food. Cash-out did not increase the incidence of perceived shortages of food in households. Indeed, as shown in Table 3, the percentage of households that reported not having enough food during the month preceding the survey is 3 percentage points lower for check recipients than for coupon recipients (16 percent versus 19 percent). The interview question on which this finding is based asked whether respondents had always had "enough" food during the preceding month. We do not know exactly how respondents interpreted this concept. However, it is interesting to note that the percentages of check and coupon households that reported having not "enough" food are roughly equivalent to the percentages for which the availability of food energy from food used at home was less than the RDA.

Respondent reports on the skipping of meals by household members due to insufficient food also are consistent with the conclusion that cash-out did not increase the incidence of shortages of food. Again, check recipients were somewhat less likely than coupon recipients to report that one or more household members skipped meals during the month preceding the survey because food was unavailable.

TABLE 1
MONEY VALUE OF FOOD USED AT HOME
(In Dollars per Week)

	Mean Value		Difference in Means		
	Check	Coupon	Absolute	Percentage	t-Statistic
Money Value of Purchased Food Used at Home					
For the overall household	55.46	54.85	0.61	1.13	0.43
Per equivalent nutrition unit ^a	33.43	33.66	-0.23	-0.69	0.31
Money Value of all Food Used at Home					
For the overall household	60.31	59.54	0.77	1.29	0.50
Per equivalent nutrition unit ^a	36.25	36.41	-0.16	-0.44	0.21

SOURCE: Evaluation of the Alabama Food Stamp Cash-Out Demonstration, household survey.

NOTE: In this study, critical values of the t-statistic for a two-tailed test (for example, a test of the hypothesis that cash-out caused a *change* in food use) are 1.960 (95 percent confidence) and 1.645 (90 percent confidence); for a one-tailed test (for example, a test of the hypothesis that cash-out caused a *reduction* in food use), they are 1.645 (95 percent confidence) and 1.282 (90 percent confidence).

One-tailed statistical tests for lower money value of purchased food and all food used at home by check recipients were performed on the check-coupon differences shown in this table. None of the differences is statistically significant at the 90 percent confidence level or higher.

^aHousehold size in "equivalent nutrition units" is an adjusted measure of household size that takes into account differences in recommended levels of food energy among households with different compositions in terms of the age, gender, and pregnancy and lactation statuses of household members. In addition, this measure takes into account the percentage of meals eaten at home by household members, as well as meals served by the household to guests.

TABLE 2
NUTRIENT AVAILABILITY
PER EQUIVALENT NUTRITION UNIT
(Nutrient Levels as a Percentage of the RDA)

Nutrient	Mean Value		Difference in Means		
	Check	Coupon	Absolute	Percentage	t-Statistic
Food Energy	162.19	161.46	0.73	0.45	0.22
Protein	258.18	258.99	-0.81	-0.31	0.15
Vitamin A	227.32	229.71	-2.39	-1.04	0.26
Vitamin C	250.63	255.40	-4.77	-1.87	0.60
Vitamin B ₆	157.59	157.30	0.29	0.19	0.09
Folate	223.94	221.69	2.25	1.02	0.39
Calcium	121.34	117.61	3.73	3.18	1.23
Iron	183.99	183.87	0.12	0.06	0.02
Zinc	127.28	128.87	-1.59	-1.23	0.56

SOURCE: Evaluation of the Alabama Food Stamp Cash-Out Demonstration, household survey.

NOTE: One-tailed statistical tests for lower availability of nutrients among check recipients were performed on the check-coupon differences shown in this table. None of the differences is statistically significant at the 90 percent confidence level or higher.

RDA = recommended dietary allowance.

TABLE 3
 RECIPIENTS' PERCEPTIONS OF THE ADEQUACY
 OF THE HOUSEHOLD FOOD SUPPLY
 (During Previous Month)

	Percentage of Respondents		Difference in Percentages		
	Check	Coupon	Absolute	Percentage	t-Statistic
Respondents Reporting Household Did Not Have Enough Food	16.02	18.57	-2.55	-13.74	1.64
Respondents Reporting Household Member Skipped Meals Due to Insufficient Food	8.21	9.90	-1.69	-17.12	1.44

SOURCE: Evaluation of the Alabama Food Stamp Cash-Out Demonstration, household survey.

NOTE: One-tailed statistical tests for lower perceptions of food adequacy among check recipients were performed on the check-coupon differences shown in this table. None of the differences is statistically significant at the 90 percent confidence level or higher.

The household survey provides little evidence that check recipients were more likely than coupon recipients to avoid shortages of food by relying more heavily than coupon recipients on nonpurchased food or on government food-assistance programs. Both groups of recipients reported that they used home-produced food and food that they had received as a gift or as a payment-in-kind that had an average money value of about \$4.75 per household per week. Check and coupon households also reported similar rates of participation in most government food-assistance programs. However, check recipients did report that they participated in government commodity-distribution programs during the month preceding the survey at a greater rate (20 percent) than did coupon recipients (17 percent). This difference is statistically significant at the 95 percent confidence level.

The purchase of food used away from home. Cash-out did not lead to an increase in the purchase of food used away from home, such as restaurant meals. Contrary to expectations, the mean weekly expenditure for food prepared and used away from home was slightly lower for check recipients than for coupon recipients (\$3.29 versus \$3.50, for the overall household). Similarly, check recipients reported eating a slightly lower percentage of their meals away from home.

Other types of consumption expenditures. One of the basic concerns about food stamp cash-out is that it might lead recipient households to shift their spending away from food used at home and to food used away from home and nonfood goods and services. Table 4 shows the percentage shares of total expenditures that households in the demonstration allocated to broad categories of consumer goods and services. This table shows that, relative to coupon recipients, check recipients did not allocate a smaller percentage of their total expenditures to food used at home, nor did they allocate a greater percentage to food used away from home. Among the nonfood consumption categories, the only category for which check recipients reported a significantly larger expenditure share than coupon recipients is the utilities component of shelter expenses. Check recipients reported allocating 1.1 percentage points more of their total consumption expenditures to utilities. Further investigation would be required to determine if this difference was actually caused by cash-out.

Participant attitudes toward cash-out. Virtually all benefit recipients who participated in the focus group discussions preferred checks to coupons. The major reasons given for this preference were: checks can be used to purchase nonfood items, such as paper products; receiving checks by mail is more convenient than picking up coupons in-person at the food stamp office; and check benefits promote the self-esteem of recipients.

The respondents to the household survey were asked a series of open-ended questions about the aspects of check and of coupon issuance that they thought were good and bad. The advantage of checks most commonly cited by check recipients was that checks can be used to purchase items other than food. Forty-three percent of the check recipients who responded to the survey mentioned this characteristic of checks (Table 5). It is not necessarily the case that these respondents actually used their check benefits to buy nonfood items. The second most commonly mentioned advantage of checks was that they eliminate the need to go to the food stamp issuance office. The frequent mention of this characteristic reflects the fact that, in Alabama, food stamp coupons are typically issued over-the-counter at food stamp offices, whereas food stamp checks were issued by mail. Sixteen percent of check recipients mentioned the elimination of the need to go to the food stamp office to pick up their benefits as an advantage of checks.

Coupon recipients tended to cite as an advantage of coupon issuance the fact that coupons ensure that benefits are spent on food. Thirty-eight percent of the coupon recipients who responded to the survey mentioned this characteristic of coupons. Thirteen percent of coupon recipients mentioned a related advantage, that coupons make it possible to budget food expenses better. In

TABLE 4

EXPENDITURE SHARES, BY CONSUMPTION CATEGORY
(Entries Are Percentages of Total Expenditures in Each Category)

Consumption Category	Mean Percentage Share of Total Expenditures		Difference in Means		
	Check	Coupon	Absolute	Percentage	t-Statistic
All Purchased Food	43.31	43.43	-0.12	-0.27	0.15
Food at home	41.34	41.27	0.07	0.17	0.09
Food away from home	1.98	2.17	-0.19	-8.77	0.94
All Shelter	33.98	32.80	1.18	3.59	1.53 [†]
Housing	14.16	14.04	0.12	0.89	0.21
Utilities	19.82	18.76	1.06	5.61	1.88 ^{††}
Medical	4.70	4.43	0.27	5.96	0.66
Transportation	8.28	8.60	-0.32	-3.72	0.72
Clothing	5.23	5.62	-0.39	-6.97	1.08
Education	1.02	1.26	-0.24	-18.85	1.91
Dependent Care	0.62	0.81	-0.19	-23.78	1.37
Recreation	1.47	1.61	-0.14	-8.47	0.89
Personal Items	1.39	1.43	-0.04	-3.16	0.42
Total	100.00	100.00			
Mean Total Expenditure	\$633.05	\$632.49			

SOURCE: Evaluation of the Alabama Food Stamp Cash-Out Demonstration, household survey.

NOTE: One-tailed statistical tests for lower expenditure shares for "all purchased food" and for "(purchased) food at home" and for greater expenditure shares for other consumption categories among check recipients were performed on the check-coupon differences shown in this table.

[†]Statistically significant at the 90 percent confidence level, one-tailed test.

^{††}Statistically significant at the 95 percent confidence level, one-tailed test.

TABLE 5
MOST COMMONLY MENTIONED ADVANTAGES OF CHECKS AND COUPONS

	Percentage of Respondents Mentioning Advantage
Advantages of Checks^a	
Can be used for items other than food	42.9
Do not have to go to issuance office	16.2
More choices of food stores	5.7
Do not feel embarrassed	5.3
Does not involve standing in line for a long time	5.3
More convenient/easier to spend	5.3
Advantages of Coupons^b	
Make sure benefits spent on food	37.8
No sales taxes charged	25.8
Can budget food expenses better	12.6

SOURCE: Evaluation of the Alabama Food Stamp Cash-Out Demonstration, household survey.

^aSample limited to check recipients.

^bSample limited to coupon recipients.

Alabama, state and county sales taxes are charged on all cash purchases of food, including purchases made with the proceeds of food stamp checks. Despite the fact that the state augmented the check benefits to offset the sales tax, 26 percent of coupon recipients cited the absence of sales taxes on coupon purchases of food as an advantage of coupon issuance. It is likely that many coupon recipients were unaware of the sales tax offset that was added to the check-benefit amounts.

Check-cashing experiences. Seventy-three percent of check recipients cashed their food checks at a supermarket, grocery, or other food store, and another 23 percent cashed or deposited them at a bank (Table 6). Most of these establishments did not charge fees for cashing food stamp checks. Fewer than 1 percent of check recipients used check-cashing outlets, which did charge fees.

The vast majority of check recipients (91 percent) paid no fee to cash their food stamp checks. Most of those who did pay a fee paid \$1 or less (57 percent of fee payers).

FINDINGS FROM THE ANALYSIS OF ADMINISTRATIVE OUTCOMES

The evaluation of the Alabama Food Stamp Cash-Out Demonstration provides findings on the lessons learned during the planning and implementation of the demonstration, and on the impact of cash-out on administrative costs and benefit losses. This section summarizes the key findings of the study concerning each of the previously highlighted research questions on administrative outcomes.

The planning and implementation of cash-out. A number of Alabama officials, most notably the Commissioner of the Alabama Department of Human Resources (DHR), were eager to implement a cash-out demonstration. Most of their efforts to achieve that goal occurred in the context of the ASSETS welfare reform demonstration; however, those efforts also made feasible the implementation of "pure cash-out"--the Alabama Food Stamp Cash-Out Demonstration. To garner public support for these demonstrations, the Commissioner and other high-level DHR staff participated in legislative hearings on welfare reform, attended meetings with FSP and public housing staff, and presided over informational meetings on cash-out and welfare reform for retail trade associations, county DHR directors, civic groups, and advocacy groups.

One key issue that had to be resolved before cash-out could be implemented was how to compensate check recipients for state and county sales taxes, which are levied on cash purchases of food, but not on coupon purchases of food. DHR resolved this issue by allocating its own funds to be used to augment the food stamp benefit of each check recipient by 7 percent, the approximate amount of the sales tax. This recurring monthly cost made DHR sensitive to the duration of the demonstration.

The development of the computer software that was an integral component of the check-issuance system was a major challenge in implementing the demonstration. This work absorbed considerable resources, primarily in the form of labor hours by the staff of DHR and a DHR contractor. The software development required more labor hours and more calendar time than was originally anticipated, which was one reason why the implementation of cash-out was delayed by four months, from January to May of 1990. The development of the software was complicated by two factors: (1) Alabama was implementing two related demonstration programs simultaneously ("pure cash-out" and ASSETS), and (2) some modifications to the cash-out automated system, which had been made before the evaluator of the pure cash-out demonstration was hired, had to be changed to fit the needs of the evaluation. With the exception of the modifications to the automated system, cash-out was implemented very smoothly. In addition to the systematic groundwork laid by the Commissioner,

TABLE 6
CHECK-CASHING EXPERIENCES OF CHECK RECIPIENTS

Check-Cashing Experience	Percentage of Respondents
Place Where Check Is Usually Cashed	
Supermarket, grocery store, or other food store	73.3
Bank	23.4
Check-cashing outlet	0.3
Other	3.0
Was a Fee Charged to Cash Check?	
Yes	9.2
No	90.8
Amount of Check-Cashing Fee, if Fee Was Charged ^a	
\$0.01 to \$1.00	56.9
\$1.01 to \$5.00	38.8
\$5.01 or more	4.3

SOURCE: Evaluation of the Alabama Food Stamp Cash-Out Demonstration, household survey.

^aThe statistics given in this section of the table are based on the fee amounts that were reported by the 116 households that reported paying a fee to cash their food stamp checks.

an important factor in the ease of implementation was the training provided by DHR to its county and state staff. A DHR staff trainer who was well-informed about cash-out worked full-time to ensure that all relevant DHR staff had a good working knowledge of cash-out and of its associated new procedures.

We estimate that the labor and associated costs of planning and implementing cash-out were \$183,000, with the majority of that amount going to software development. This estimate includes fringe benefits, but does not include overhead. It also includes the cost of contracted services and products.

Issuance costs. We found that costs were indeed lower under check issuance than under coupon issuance. Overall, check issuance cost \$1.03 per case-month, or about one-half the cost of coupon issuance, which was \$2.05 per case-month. Columns A and B of Table 7 show that issuance costs incurred at the federal level (\$0.51 per case-month under coupon issuance) were eliminated under check issuance. Issuance costs incurred at the county and state levels were \$1.54 per case-month under coupon issuance, but were only \$1.03 per case-month under check issuance. The federal government pays 100 percent of issuance costs incurred at the federal level, as well as 50 percent of the costs incurred at the county and state levels. This allocation of responsibility for the payment of issuance costs is reflected in Columns C-E of Table 7, which show that three-quarters of the savings in issuance costs resulting from cash-out accrued to the federal government and one-quarter accrued to the state government.

Benefit losses. Food stamp cash-out in Alabama virtually eliminated several types of benefit losses that had been borne by either the state or the federal government under coupon issuance. However, these types of losses are quite small under coupon issuance, thus precluding the possibility that cash-out might achieve substantial cost savings in this area.

One type of loss, losses and thefts in the mail, increased significantly under cash-out. This increase was due largely to the increased use of mail issuance under the demonstration. Under coupon issuance in Alabama, most issuances are made on an over-the-counter basis, which is a relatively secure (although expensive) form of issuance. The mail issuance of coupons is generally restricted to small benefit amounts. Under cash-out, food stamp benefit checks were sent to program participants through the mail, an issuance mode that is substantially more vulnerable to losses. Costs resulting from checks being lost or stolen in the mail and then fraudulently cashed averaged \$0.14 per case-month under cash-out. Because the average mailed benefit amount is substantially lower under coupon issuance than under check issuance, the mail loss of benefits is much lower (\$0.05 per mail-issuance case-month) under coupon issuance than under check issuance. This difference should not be interpreted as evidence that coupons are more secure than checks when issued through the mail.

Overall, the analysis implies that issuance-system vulnerabilities increased as a result of cash-out. This increase occurred primarily because of the issuance of food stamp checks by mail, rather than because of the change in the form of benefit. Thus, the additional costs arising from the loss and theft of food stamp checks in the mail is less a cost of cash-out than it is of the change in the mode of delivering benefits to clients. The costs resulting from the loss and theft of benefit checks in the mail were borne by the third parties, such as banks and stores, that cashed the fraudulent checks. (Under the regular coupon-issuance system, the federal government bears the cost of replacing benefits that have been lost in the mail.)

TABLE 7

COUPON-ISSUANCE AND CHECK-ISSUANCE COSTS PER CASE-MONTH,
BY LEVEL OF GOVERNMENT AT WHICH COSTS ARE INCURRED AND PAID
(In Dollars)

	Costs Incurred		Costs Paid		
	Coupon Issuance (A)	Check Issuance (B)	Coupon Issuance (C)	Check Issuance (D)	Savings (E=C-D)
Federal Government	0.51	0.00	1.28	0.515	0.765
State/County Government	1.54	1.03	0.77	0.515	0.255
Total	2.05	1.03	2.05	1.030	1.020

SOURCE: Evaluation of the Alabama Food Stamp Cash-Out Demonstration.

NOTE: The amounts shown under "Costs Paid" reflect federal sharing of 50 percent of costs incurred at the state and county levels.

It is likely that losses borne by food stamp clients declined under cash-out, because the FSP replaced checks that were lost or stolen before being endorsed and cashed, whereas the FSP will not replace lost or stolen coupons. In addition, check recipients were less likely to be subject to possible overcharging of food stamp recipients by some food retailers.

CONCLUSIONS

The potential impact of cash-out on the ability of the FSP to target its benefits specifically to food has been a central component of the policy debate about the desirability of this policy alternative. Opponents of cash-out have been concerned that issuing benefits in the form of checks would greatly weaken the program's impact on food use, whereas proponents have felt that the purchase of food would remain a high priority for recipients, even without the specific linkage to food purchases provided by coupons. Proponents have also argued that cash-out would lower the cost of administering the FSP and the cost of benefit losses.

The evidence from the Alabama Food Stamp Cash-Out Demonstration indicates that, in Alabama, cash-out did not result in lower expenditures for food or in reductions in the amount of nutrients provided by food used at home. The differences between check and coupon recipients in the mean values of these and other outcome variables are 3 percent or less and are mixed in sign. For none of the major outcome variables are the check-coupon differences in mean values statistically significant.

The impact of cash-out on the cost of administering the FSP is also relevant in assessing this policy alternative. We found that the cost of issuing benefits was 50 percent lower under check issuance than under coupon issuance. Costs incurred at the combined county and state levels declined, while costs incurred at the federal level were eliminated. Considering federal sharing of costs incurred at the county and state levels, three-quarters of the savings from the reduced issuance costs accrued to the federal government, and one-quarter accrued to the state government.

The impact of cash-out on benefit losses is also an important policy issue. The costs to the federal and state governments from losses during the production, shipment, and storage of coupons, and from the overissuance of benefits, declined or were eliminated under cash-out. The costs to food stamp recipients associated with the theft and loss of coupons also declined or were eliminated. However, the greater security of checks was more than offset by a higher use of mail issuance, which is more vulnerable than over-the-counter issuance to loss, and by a higher average mailed benefit amount. These two factors resulted in an increase in the per-case-month cost of mail loss that exceeded the decrease in the per-case-month cost of other types of losses for which we have data. The increased cost of benefit loss was borne by third parties, such as banks and stores. Thus, under cash-out, the state and federal governments and food stamp recipients experienced reductions in costs associated with benefit losses, but third parties experienced increases in costs from such losses.

Finally, all of these results from the Alabama demonstration must be considered in light of the somewhat different findings obtained in evaluating the San Diego Food Stamp Cash-out Demonstration. In San Diego, cash-out was observed to have a small but statistically significant negative impact on the value of food purchased for home use and on several other outcome variables. (Administrative findings for San Diego are not yet available.) This finding suggests that the impacts of cash-out may depend on the context and way in which this alternative form of issuance is implemented.

I. INTRODUCTION

This report on the evaluation of the Alabama Food Stamp Cash-Out Demonstration describes the effects of a test of food stamp cash-out that was conducted in 12 Alabama counties between May and December of 1990. The report examines impacts of cash-out on the administration of the Food Stamp Program (FSP) and on households participating in the program.

In its examination of household impacts, the report focuses on the effects of cash-out on food expenditures, food use, and nutrient availability. In addition, it considers a number of related issues, such as households' experiences in running out of food, the attitudes of households toward cash-out, and expenditure shifts from food to other goods and services. Volume I of this two-volume report presents the findings of the evaluation on household impacts.

In its examination of impacts on program administration, the report examines differences in operating costs between the experimental check-issuance system, under which benefits are issued by mail, and Alabama's existing coupon-issuance system, under which most benefits are issued over-the-counter. It also describes the planning and implementation of the demonstration and examines the impacts of the demonstration on issuance-system losses. Volume II of this report presents the findings from the analysis of administrative outcomes.

Section A of this introduction provides the background for the analysis by highlighting key policy issues related to cash-out. Section B discusses the relevant previous research, and Section C discusses the overall research strategy of the Food and Nutrition Service (FNS) of the U.S. Department of Agriculture (USDA) with regard to cash-out. Section D describes the Alabama Food Stamp Cash-Out Demonstration, which was the basis for the findings presented in this report. Section E highlights key aspects of the evaluation design. Section F provides an overview of both volumes of this report.

A. KEY POLICY ISSUES

The form that benefits paid out under the FSP should take has been an issue of long-standing debate. Advocates of the current coupon system argue that the coupon system is a direct and inexpensive way to ensure that recipients of food stamp benefits use their benefits to purchase food. Coupon advocates contend that, despite some evidence of fraud and benefit diversion under the current system, the unauthorized use of food stamps is relatively limited. In addition, they argue that coupons offer some measure of protection to food budgets from other demands on limited household resources.

Advocates of cashing out the FSP argue that the current system is prone to abuse, that it limits the food-purchasing choices of recipients, and that it places a stigma on those who participate in it. Moreover, advocates of cash-out argue that the current system of coupon issuance, transaction, and redemption is both cumbersome and costly.

A number of questions must be answered in order better to inform this policy debate. These include the following eight questions:

1. What is the effect of cash-out on household food use?¹ A central objective of the FSP, regardless of whether benefits are issued as coupons or checks, is to enable participating households to obtain and use the kind and quantity of food that meets their nutritional needs.
2. What is the effect of cash-out on household food expenditures? It is important to examine how recipients of food stamp checks differ from recipients of food stamp coupons in the amount spent on food, the types of stores at which food is purchased, and the proportions of total food expenditures devoted to food eaten at home and to food eaten away from home.
3. What is the effect of cash-out on household expenditures, by major budget categories? Although both food stamp checks and coupons are intended to be spent on food, households might choose to spend check benefits differently from how they would spend coupon benefits. An objective of the research is to

¹The term "household food use" refers to food used by a household from its home food supply, including food that was purchased, home-produced, received as a gift or payment-in-kind, or obtained through a government program or a charitable organization. See Section III.A.1.b for a more detailed definition of this term.

determine whether the amounts that households spend in major budget categories, such as housing and transportation, change under cash-out.

4. What are the attitudes of clients toward cash benefits? Little information exists on how program participants will respond to a cash benefit. On the one hand, cash might give participants more flexibility in spending and relieve them of the "stigma" of buying food with coupons. On the other hand, cash might make household budgeting and control over benefits more difficult.
5. How does cash-out affect program administrative costs? The cashing out of food stamp benefits dramatically alters the benefit-issuance process and eliminates an entire range of activities, such as storing and distributing coupons. Eliminating coupon-issuance activities might reduce the total staff requirements of the FSP or free up issuance staff to take on other duties.
6. What problems, if any, are associated with cash-out? Although certain problems, which are associated with coupons, will be eliminated (such as trafficking), others could emerge. Chief among these might be check forgery, high check-cashing fees, and increased food costs resulting from state and local sales taxes on food.
7. What are the effects of cash-out on program participation? It is of interest to determine whether cash-out encourages or discourages participation in the FSP. It is also important to examine any effects of cash-out on average benefit amounts and on the distribution of benefits.
8. What are the effects of cash-out on food retailers? If cash-out changes household food-purchasing habits, authorized food retailers might lose sales. These losses might be partially or fully offset by savings that result from eliminating coupon-redemption processing.

In this report, Mathematica Policy Research, Inc. (MPR) uses data from the Alabama Food Stamp Cash-Out Demonstration to examine the first six of these research issues. The design of the Alabama demonstration precluded consideration of the last two issues, which other parts of the overall cash-out research agenda of FNS (most notably, the San Diego Food Stamp Cash-Out Demonstration) do address. We summarize that research in Section C.

B. PREVIOUS FINDINGS

Research that is based on the ongoing check issuance of food benefits to all participants in Puerto Rico's Nutrition Assistance Program (Beebout et al., 1985; Devaney and Fraker, 1986) and on a 1981 demonstration of check issuance of food stamp benefits to elderly persons and recipients

of Supplemental Security Income (SSI) in two states--Utah and Vermont--plus portions of six other states--Minnesota, New York, Ohio, Oregon, South Carolina, and Virginia--(Blanchard et al., 1982; Butler, Ohls, and Posner, 1985) has shown that, in the context of those studies, check issuance is less expensive than coupon issuance. In addition, the research found no evidence that check issuance reduced food consumption or lowered diet quality. Unfortunately, these findings are of only limited use to policymakers, because they were not based on data for broadly defined cross-sections of FSP participants in the mainland United States.

Reports analyzing the food-consumption patterns of food stamp households that have been included in national surveys provide additional evidence of the impact of cash-out on food consumption. The findings from virtually all studies that were based on nationally representative samples of low-income populations show that food coupons have a much larger impact on food consumption than does ordinary cash income.² However, those studies had nonexperimental designs and provide no direct information about the effects of cash food stamp benefits on food consumption. Nevertheless, some analysts have used estimates of the relationship between income and food consumption as a proxy for the potential effects of cash food stamp benefits. Because the estimated impacts of income on food consumption have consistently been lower than the estimated impacts of food benefits, the analysts have concluded that cash-out would reduce food stamp households' consumption of food.³

The contradictory findings from these various types of studies leave policymakers with inadequate and conflicting information about the merits and efficacy of cash-out. The evaluations of the Alabama Food Stamp Cash-Out Demonstration and of several related demonstrations, which we summarize in the following section, have been designed to provide policymakers with reliable

²Fraker (1991) reviews many of the existing studies of the effects of food stamps on food consumption and summarizes their principal findings.

³See, for example, page 31 of Allen and Gadson (1983), and page 42 of Senauer and Young (1986).

additional information on the comparative costs of check and coupon issuance, and on the differential effects of the two benefit forms on household food use and nutrient availability.

C. OVERVIEW OF FNS' RESEARCH STRATEGY FOR FOOD STAMP CASH-OUT

To increase policymakers' understanding of the effects of cash-out, FNS has approved four major demonstrations of food stamp cash-out:

- **Washington State Family Independence Program (FIP).** Since July of 1988, recipients of Aid to Families with Dependent Children (AFDC) who are served by certain randomly selected welfare offices in Washington State have received their food stamp benefits in the form of checks as one component of a broad set of welfare reform initiatives that is being tested.
- **San Diego Food Stamp Cash-Out Demonstration.** In July of 1989, 20 percent of the food stamp caseload in San Diego County, California was cashed out. All food stamp households in the county were converted to cash food benefits on September 1, 1990.
- **Alabama Food Stamp Cash-Out Demonstration.** Approximately 2,300 households in 12 counties were randomly selected to receive food stamp checks during the period May through December of 1990.
- **Alabama Avenues to Self-Sufficiency through Employment and Training Services (ASSETS) Demonstration.** The ASSETS welfare reform demonstration was implemented on a staggered basis in three Alabama counties during the period May 1990 through January 1991. This demonstration includes a number of changes in the operation of the AFDC program, as well as the cashing-out of food stamp benefits for joint AFDC/food stamp households.

These sites vary substantially on a number of important characteristics, including the amount of the average household food stamp benefit, urbanicity, and the availability of other assistance, such as AFDC and General Assistance. Two of the demonstrations (San Diego and Alabama) were "pure" demonstrations, which involved only cash-out, and two (Washington FIP and Alabama ASSETS) are "mixed" demonstrations, which operate in conjunction with other policy interventions.

Evaluations of each of the four major cash-out demonstrations have been conducted, or are currently under way. The evaluations of the San Diego and Alabama pure cash-out demonstrations will be the most comparable, because these demonstrations did not involve any other policy changes.

Furthermore, because these demonstrations did not entail other policy interventions, they have the greatest potential for shedding light on the specific impacts of cash-out on households participating in the FSP and on the administration of the program.

In this light, it is important to note that the San Diego and Alabama demonstrations provided opportunities to observe cash-out in two very different settings. San Diego is a highly urbanized county in a state with relatively high AFDC benefit levels. Alabama has relatively low AFDC benefit levels, and 10 of the 12 counties included in the Alabama demonstration are predominantly rural.

The findings from the evaluation of the San Diego Food Stamp Cash-Out Demonstration (Ohls et al., 1992) show that, for food stamp recipients in San Diego County, cash-out caused a relatively small, but statistically significant, reduction in the money value of food used at home. Cash-out was also found to have caused small reductions in the availability of food energy and protein. However, cash-out in San Diego reduced the availability of only two of the seven micronutrients studied.

D. THE ALABAMA FOOD STAMP CASH-OUT DEMONSTRATION

Alabama became interested in food stamp cash-out during the planning phase of a broader welfare reform initiative, the ASSETS Demonstration. In that context, cash-out was one component of an overall strategy, the goals of which were to increase the integration of low-income assistance programs and to help welfare clients achieve self-reliance and self-sufficiency.

When FNS waived FSP regulations so that Alabama could conduct the ASSETS Demonstration, the agency also asked Alabama to test cash-out in the context of a more limited demonstration. By limiting the demonstration to cash-out only, the effects of cash-out could more readily be distinguished from the effects of other changes in the welfare system. We examine that "pure" cash-out demonstration in this report.

The demonstration was conducted in 12 counties in Alabama, 2 of which are highly urbanized, and 10 of which are predominantly rural. At the beginning of the demonstration, in May of 1990, the form of the food stamp benefit was converted from coupons to checks for approximately 2,000

randomly selected households (4 percent of the caseload in the demonstration counties). One-half of the selected households resided in the two urban counties, and one-half resided in the ten rural counties. Subsequent to May of 1990, additional households were randomly selected into experimental status (that is, to receive food stamp checks) as they entered the FSP, with selection probabilities identical to those used to select the initial experimental households. All experimental households that remained in the FSP continued to receive their benefits in the form of checks through December of 1990. Those households reverted to the traditional coupon form of the food stamp benefit in January of 1991.

At the end of June of 1990, 2,004 experimental households were active participants in the FSP. From the households in the 12 demonstration counties that were active recipients of food stamp coupons at that time, 2,012 were randomly selected to serve as control cases. An additional 249 check households and 221 coupon households that entered the FSP subsequent to the end of June and that were active participants at the end of August were also selected to serve, respectively, as experimental and control cases. This additional selection was made in order to replace the original experimental and control cases that had left the FSP, and to ensure an adequate representation of newer cases in the study.

The households in the demonstration received their food stamp checks from the Alabama Department of Human Resources (DHR). The checks were mailed from DHR's main office in Montgomery. The food stamp checks were sent separately from any other assistance payments, such as AFDC benefits, that a household might have been eligible to receive.

The State of Alabama and its individual counties impose a sales tax that is applied to food that is purchased with cash, but which, under federal law, cannot be applied to purchases made with food stamps. Thus, under cash-out, if the dollar amount of checks had been the same as the dollar amount of food coupons, the imposition of the state sales tax on cash purchases of food would have had the effect of decreasing the purchasing power of the benefits received by check households. To offset

this decrease, the amount of the food stamp check that each household received was 7 percent higher than the value of the food stamps to which it was actually entitled. The 7 percent increase reflects the modal value of the sales tax in the demonstration counties. (Because a portion of the sales tax is set locally, the total tax varies between 7 percent and 8 percent across the demonstration counties.) Alabama's DHR used state revenues to provide the supplemental benefit.

E. THE RESEARCH DESIGN

The evaluation of the effects of the Alabama Food Stamp Cash-Out Demonstration has two major components: (1) an evaluation of the impacts on households, and (2) an evaluation of the impacts on program operations. The following sections summarize the research designs for the two components.

1. Impacts on Households

The examination of the impacts of cash-out on households that are participating in the FSP draws heavily on the experimental design of the demonstration, which randomly allocated participating households to either experimental or control status. We used the data that we collected from the two groups to estimate the impacts of the experiment.

a. Analytic Approach

The random assignment of households in the demonstration to experimental or control status provided an ideal program environment in which to evaluate the effects of cash-out on households' use of food and nutrient availability. Because households were randomly assigned to experimental or to control status, observed differences between the two groups in key outcomes can be ascribed only to the demonstration policies or to statistical sampling error. Therefore, we have based much of the analysis reported in subsequent chapters on direct comparisons between the two groups.

b. Data Sources

This report is based largely on data obtained from an in-person survey of 1,255 check recipients and 1,131 coupon recipients that was conducted between August and November of 1990. The survey obtained detailed information on household composition and income and also collected very extensive data on the foods used by each household during the seven days preceding the interview. In addition, the recipients were asked about their households' attitudes toward and experiences with cash-out. We achieved survey response rates of 78 percent for the questions on household composition, income, and attitudes, and 75 percent for the questions on food use.

To supplement this survey information, we also draw on information obtained during four focus group discussions. The discussions were held with elderly and nonelderly groups in one urban and one rural county in Alabama with FSP participants who previously had received their benefits in the form of coupons, but whose benefit form had been converted to checks at the commencement of the demonstration. The focus groups enabled us to explore issues related to client experiences with cash-out in greater depth than was possible in the structured survey.

2. Impacts on Program Operations

The analysis of impacts on program operations was based primarily on on-site and telephone interviews with state-level and county-level food stamp staff in Alabama. We also used data compiled and reported by Alabama FSP staff, as well as program reports and procedures manuals, a survey of county-level workers who had handled check-issuance problems, and telephone interviews with advocacy groups.

a. Analytic Approach

Many of our findings, especially those from the process analysis of the planning and implementation of the cash-out demonstration, are presented in narrative form. In the analysis of issuance costs, we estimate the costs of labor and other resources used by the different levels of

government in issuing coupons and checks and compare the estimates in tables. We use a similar approach to analyze the costs of planning and implementing the demonstration. In the analysis of benefit loss, we present our estimates in three ways: (1) the dollar amount of issuances lost as a percentage of the total amount issued, (2) the number of issuances lost as a percentage of the total number of issuances, and (3) the per-case-month cost of benefit loss (obtained by dividing a monthly cost by the monthly food stamp caseload).

b. Data Sources

Two components of the analysis of the impacts of cash-out on program operations--the planning and implementation analysis, and the issuance cost analysis--draw heavily on information that we obtained through structured interviews with state-level staff of DHR and other state agencies in Montgomery and with county-level DHR staff. We supplemented interviews with follow-up telephone interviews with county-level staff. We also conducted a mail survey of county-level workers who had handled check-issuance problems in order to obtain more information on those problems and on how they were resolved.

Other sources of information for the planning and implementation analysis and the issuance cost analysis include telephone interviews with representatives of three advocacy groups, which we conducted to obtain a variety of viewpoints on cash-out; program procedure manuals, reports, and other documents; and federal cost data from Kirlin et al. (1990).

The third component of the analysis of administrative outcomes compares the amount of benefit loss under coupon issuance and check issuance. The primary sources of data for this analysis are the monthly FNS-46 (issuance reconciliation) and FNS-250 (food coupon accountability) reports, the quarterly FNS-259 (food stamp mail issuance) report, and data on check issuance compiled by the Food Stamp Division of DHR. We supplement these sources with information obtained from the interviews with FSP staff and the focus group discussions with clients, both described previously.

F. THE STRUCTURE OF THIS REPORT

This report comprises two volumes. The first volume, which includes Chapters II through VII, focuses on the impacts of the demonstration on recipients of food stamp benefits. The second volume, consisting of Chapters VIII through XIII, examines administrative outcomes of the demonstration. The second volume also presents overall conclusions, which are based on both parts of the analysis, as well as technical appendices.

1. Recipient Impacts (Volume I)

Chapter II describes the context of the Alabama demonstration. It compares Alabama and the nation as a whole on a number of socioeconomic characteristics. It also compares characteristics of food stamp households in Alabama and selected groups of states (sharing Alabama's Census region, having rural status, and having low AFDC benefit levels), in Alabama and California (because San Diego County, California, is the site of the other "pure" cash-out demonstration), and in Alabama and the entire United States.

Chapter III describes the data and methods underlying the analyses of the impact of cash-out on food stamp households. Section A describes the sampling and data collection procedures used to collect the data on which the report is based. Section B describes the analysis strategy. Section C defines key measures used in the analyses of the household survey data. Section D describes the size and characteristics of the check and coupon household samples.

Chapter IV presents findings about the impact of the demonstration on household food use. Sections A through C examine the effects of cash-out on the money value of food used at home, on the kinds and quantities of food used at home, and on the nutrients provided by food used at home. Section D describes the self-assessments made by check and coupon recipients of the adequacy of the food used by their households.

Chapter V examines the impact of cash-out on food and nonfood expenditures and on shopping patterns. Section A presents findings on the pattern of household expenditures for broad categories

of consumer goods and services. Section B presents findings from the household survey on household food-shopping patterns, including the types of stores at which food is purchased and the usual number of shopping trips per month to each type of store.

Chapter VI examines recipient households' attitudes toward and experiences with cash-out. Section A discusses what households like and dislike about food stamp checks and coupons. This discussion is based on data from the household survey and the focus group discussions. Section B presents findings from the same data sources on households' evaluations of the utility of food stamp checks and coupons in managing their food budgets. Section C describes the types of institutions at which households cash their food stamp checks, the charging of check-cashing fees by those institutions, and the incidence of problems associated with check cashing. For check households that began receiving benefits after the commencement of cash-out, Section D presents self-assessments of how the benefit form influenced the households' decision to enter and to continue to participate in the FSP.

Chapter VII compares the results of the Alabama Food Stamp Cash-Out Demonstration with the findings from the San Diego Food Stamp Cash-Out Demonstration. It also discusses possible explanations for observed differences between the two demonstrations.

2. Administrative Outcomes (Volume II)

Chapter VIII, the first chapter in Volume II, briefly reviews the policy issues concerning food stamp cash-out. It also reviews the topics that were covered in Volume I and previews the contents of Volume II.

Chapter IX describes the data and methods underlying the analysis of the impact of cash-out on program administration. It discusses the research questions, the variables that we analyze, the data sources and collection methods, and the analytic techniques that we use in the three components of the analysis. Section A covers the implementation analysis, Section B covers the analysis of administrative costs, and Section C covers the analysis of benefit losses.

Chapter X describes the planning, implementation, and operation of the Alabama Food Stamp Cash-Out Demonstration. It covers the origin of the cash-out idea, how support for cash-out was built, planning activities, problems and issues that had to be resolved, the design of computer software, lessons learned from implementing the demonstration, and coupon-issuance and check-issuance procedures.

Chapter XI analyzes the impact of the demonstration on administrative costs, as well as on the costs of planning and implementing the demonstration. Section A compares county-level, state-level, and federal-level costs of coupon and cash issuance on a per-case-month basis. It estimates the reductions in issuance costs resulting from the conversion to cash issuance, and the proportion of the savings that accrue to the federal and state governments. Section B estimates the labor and nonlabor costs of planning and implementing the demonstration.

Chapter XII assesses the impact of the demonstration on benefit loss due to theft or loss during production, shipping, storage, or mailing, or from clients after receipt; and from duplicate issuances. It categorizes the losses according to whether they are borne by the state or federal governments; food stamp recipients; or third parties, such as banks or stores.

Finally, Chapter XIII summarizes and presents the conclusions from the analysis of administrative outcomes, as well as overall conclusions from the study. Appendices present technical methodological discussions and supporting information about the demonstration, relating primarily to material covered in Volume I.

II. THE CONTEXT OF ALABAMA'S FOOD STAMP CASH-OUT DEMONSTRATION

The context of the Alabama Food Stamp Cash-Out Demonstration provides a framework for interpreting the results of the demonstration and aids in assessing the degree to which the Alabama experience can be generalized to other states and to the national level. Socioeconomic and demographic characteristics that might influence the results of a food stamp cash-out demonstration are different in Alabama and much of the rest of the country. For example, Alabama has relatively low Aid to Families with Dependent Children (AFDC) payments, which means that food benefits constitute a large proportion of the total income of many food stamp households in Alabama. In addition, Alabama has a relatively high proportion of rural residents, who might respond quite differently from urban residents to cash food benefits.

In this chapter, we present the context of the Alabama Cash-Out Demonstration by comparing Alabama households with U.S. households. In Section A, in one set of comparisons, we focus on such characteristics as per capita income, unemployment rate, household size, average food stamp benefit amount, percent of the population receiving AFDC or Supplemental Security Income (SSI), average and maximum AFDC payments, and percent of the population living in rural areas. In Section B, in a second set of comparisons, we focus only on those households that receive food stamps and compare food stamp households in Alabama with food stamp households in the United States as a whole, and with those in four groups of states comprising: (1) states in the East South Central Census Division,¹ (2) states in the South Census Region,² (3) the 15 states with the lowest

¹Alabama, Kentucky, Mississippi, and Tennessee.

²Alabama, Arkansas, Delaware, District of Columbia, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, and West Virginia.

maximum AFDC payments,³ and (4) the 15 most rural states.⁴

We also compare food stamp households in Alabama and in California. Alabama differs widely from much of the rest of the United States on a number of important characteristics, which limits the generalizability of the results of the Alabama Food Stamp Cash-Out Demonstration. Thus, the U.S. Department of Agriculture (USDA) chose to conduct another "pure" food stamp cash-out demonstration in San Diego County. California provides a sharp contrast to Alabama on such characteristics as household composition; proportion of households with earned income or AFDC; and average AFDC payments, income, and shelter expense. We compare food stamp households in Alabama with those in California because the findings from the Alabama and the San Diego evaluations might provide a good indication of how a large proportion of the nationwide food stamp caseload would respond to check benefits. Section C summarizes the comparative findings and discusses the extent to which the Alabama Cash-Out Demonstration might be generalized.

The sources of the statistics reported in this chapter include the *1990 Statistical Abstract of the United States*, the *1991 Statistical Abstract of the United States*, the 1980 Census, the 1990 "Green Book" (*Background Material and Data on Programs Within the Jurisdiction of the Committee on Ways and Means*), 1989 Food and Nutrition Service Project Area data (state-level Food Stamp Program, or FSP, administrative data), and 1989 Integrated Quality Control System data (household-level FSP administrative data).

³These states are (in order of increasing average AFDC payments) Alabama, Mississippi, Tennessee, Texas, Louisiana, Arkansas, South Carolina, Kentucky, West Virginia, New Mexico, North Carolina, Georgia, Indiana, Missouri, and Arizona.

⁴The 15 states having the highest percentage of their population living in rural areas are (in order of decreasing degree of ruralness) Vermont, West Virginia, South Dakota, Mississippi, Maine, North Carolina, North Dakota, Kentucky, Arkansas, New Hampshire, Montana, Idaho, South Carolina, Iowa, and Alabama (from Table 16, *U.S. Department of Commerce, Bureau of the Census, 1980*).

A. A COMPARISON OF ALL HOUSEHOLDS IN ALABAMA AND IN THE UNITED STATES

Alabama is a relatively poor state, whose low-income residents depend heavily on food stamps.

Table II.1 shows that, compared with the United States as a whole:

- From 1980 to 1988, the population in Alabama increased more slowly.
- Alabama's population has a somewhat higher percentage of children, and approximately the same percentage of elderly persons.
- Personal income per capita is relatively low in Alabama.
- Unemployment is relatively high in Alabama.
- The average household size in Alabama is approximately the same.
- The percentage of persons receiving food stamps is substantially higher in Alabama, and the average food stamp benefit is somewhat higher.
- The percentage of persons receiving AFDC or SSI is approximately the same in Alabama.
- The maximum AFDC payment for a three-person family is substantially lower in Alabama.

Table II.2 ranks Alabama among the 50 states and the District of Columbia on several relevant characteristics. Because Alabama ranks near the bottom of the list on per capita income, and at the bottom on the maximum AFDC payment for a three-person family, it is not surprising that it ranks high on the percentage of households receiving food stamps and on the average food stamp benefit amount. It also ranks well above average on the percentage of the population receiving AFDC or SSI and on the percentage of the population living in rural areas.

TABLE II.1

SOCIOECONOMIC CHARACTERISTICS OF ALABAMA
AND THE UNITED STATES AS A WHOLE

Characteristic	Alabama	United States
Population, 1990 (in thousands) ^a	4,041	248,710
Percent Increase in Population, 1980-1990 ^a	3.8 %	9.6 %
Percent of Population in 1989 ^b		
Less than 18 years old	26.9 %	25.8 %
65 years and older	12.7 %	12.5 %
Personal Income per Capita, 1989 ^c	\$11,634	\$14,948
Unemployment Rate, 1989 ^d	7.0 %	5.3 %
Persons per Household, 1990 ^e	2.62	2.63
Persons Receiving Food Stamps, 1989 ^f		
Number (in thousands)	438	18,929
Percent	10.6 %	7.6 %
Average Monthly Food Stamp Benefit, July 1989 ^g		
Per recipient household	\$146	\$133
Per recipient person	\$53	\$51
Percent of Persons Receiving AFDC or SSI, 1989 ^h	6.3 %	6.1 %
Maximum Monthly AFDC Payment for a Three-Person Family, 1990 ⁱ	\$118	\$364 ^j

SOURCE: Except as noted in footnotes f, g, and i, data are from U.S. Department of Commerce, Bureau of the Census, 1991. Tables from which the data are taken are indicated in footnotes a-f and h.

^aState Rankings Table, p. xii.

^bTable 28.

^cTable 711.

^dTable 636.

^eTable 61.

^fCalculated from data in the State Rankings Table, p. xii, U.S. Department of Commerce, Bureau of the Census, 1990; and Table 611, U.S. Department of Commerce, Bureau of the Census, 1991.

^gU.S. Department of Agriculture, Food and Nutrition Service, September 1990.

^hTable 614.

ⁱU.S. House of Representatives, Committee on Ways and Means, 1990, Table 10.

^jThe median among the 50 states and Washington, D.C.

AFDC = Aid to Families with Dependent Children; SSI = Supplemental Security Income.

TABLE II.2
ALABAMA'S RANK AMONG THE 50 STATES
AND THE DISTRICT OF COLUMBIA

Characteristic	Alabama's Rank
Personal Income per Capita, 1989 ^a	43
Maximum Monthly AFDC Payment for a Three-Person Family, 1990 ^b	51
Percent of Households Receiving Food Stamps, 1989 ^c	8
Percent of Population Receiving AFDC or SSI, 1989 ^d	14
Average Food Stamp Benefit, July 1989 ^e	15
Per person	19
Per household	
Percent of Population Living in Rural Areas, 1980 ^f	15

^aTable 711, U.S. Department of Commerce, Bureau of the Census, 1991; the District of Columbia is not included.

^bCalculated from data in Table 10, U.S. House of Representatives, Committee on Ways and Means, 1990.

^cCalculated from data in Table 611, U.S. Department of Commerce, Bureau of the Census, 1991.

^dCalculated from data in Table 614, U.S. Department of Commerce, Bureau of the Census, 1991.

^eCalculated from data in U.S. Department of Agriculture, Food and Nutrition Service, September 1990.

^fTable 16, U.S. Department of Commerce, Bureau of the Census, 1980.

AFDC = Aid to Families with Dependent Children; SSI = Supplemental Security Income.

B. A COMPARISON OF FOOD STAMP HOUSEHOLDS IN ALABAMA AND IN SELECTED GROUPS OF STATES

For 1989, Table II.3 compares characteristics of food stamp households in Alabama with food stamp households in selected groups of states, in California, and in the United States as a whole; comparisons are made by Census division and region, maximum AFDC payment, and proportion of rural residents. An asterisk for a given characteristic and group of states indicates that the food stamp households in that group are statistically different from the Alabama food stamp households at the 95 percent confidence level.⁵ Note that several of the states belong to more than one group; for example, a number of East South Central Division and South Region states also provide low AFDC payments and are relatively rural.

In general, the values of the selected characteristics for food stamp households in the various state groups lie between those of food stamp households in Alabama and in the United States as a whole. Furthermore, the differences between food stamp households in Alabama and those in California are greater than the differences between Alabama and those in the United States as a whole. As expected, these differences suggest that the results of the Alabama Cash-Out Demonstration might be more generalizable to the state groups, and less generalizable to California, than to the United States as a whole. Using the number of characteristics differing significantly between Alabama and each state group as a rough indicator of the degree of similarity shows that the East South Central Division states are most like Alabama; these states differ significantly from Alabama on only 6 of 17 characteristics. The other groups (the South Region states, the 15 states with the lowest maximum AFDC payment for a family of three, and the 15 most rural states) are less like Alabama; each group, which differs on 10 or 11 characteristics, shows roughly the same degree of similarity to Alabama. Food stamp households in Alabama differ significantly from food stamp households in California and in the United States as a whole on all of the characteristics. As noted

⁵Note that, in Table II.3, values for the state groups include Alabama; however, we excluded Alabama from the groups and calculated new means and distributions before the statistical tests were performed, thereby increasing the power of the comparisons.

previously, some states belong to more than one group. Consequently, the results of the Alabama Cash-Out Demonstration are presumably most generalizable to those states and might be particularly generalizable to Kentucky and Mississippi, which belong to all of the comparison state groups, as does Alabama.

Overall, compared with food stamp households in the United States as a whole, in California, and in the four selected groups of states, food stamp households in Alabama are more often black, and more often elderly. In addition, they consist less often of a married couple with children, receive AFDC less often, receive much lower AFDC payments, depend more heavily on food stamps, and usually have lower expenses for housing.

Some of these characteristics might have a greater influence on food-purchasing patterns and the impact of cash-out on those purchasing patterns than other characteristics. For example, compared with other South Region states, other low-AFDC states, and California, as well as the United States as a whole, Alabama has a relatively high percentage of elderly households among its food stamp population. Therefore, if the elderly tend to have more stable food-purchasing behaviors than do the nonelderly, when food benefits are cashed-out, overall food-purchasing patterns might change less in Alabama than in the other states.

Similarly, because housing costs are lower in Alabama than in all of the comparison groups except the other East South Central states, food stamp households in Alabama might be under less pressure to use some of their check benefits to cover housing costs. The lower pressure might also tend to minimize changes in food-purchasing patterns after food benefits are cashed-out, compared with changes in other states.

On the other hand, the exceptionally low AFDC payments in Alabama (even compared with other low-AFDC states), and the high proportion of total benefits comprised of food stamps (92 percent in Alabama, and much lower elsewhere), might impose financial pressure on AFDC house-

TABLE II.3
COMPARISON OF CHARACTERISTICS OF FOOD STAMP HOUSEHOLDS
IN ALABAMA AND OTHER STATES, 1989

Characteristic	Alabama	East South Central Division	South Region	15 States with Lowest Maximum AFDC Payments	15 Most Rural States	California ^a	United States as a Whole
Average Size of Household	2.78	2.75	2.74	2.83	2.70	2.93 *	2.62 *
Percent Distributions:							
Age of Householder (Years)							
Less than 21	2.2	4.1	4.1	4.2	3.7	12.5	5.7
21 to 35	38.4	38.8	40.6	41.7	39.5	57.4	45.1
36 to 59	29.8	30.3	29.5	30.3	29.7	27.2	30.5
60 and older	29.6	26.9	25.8	23.8	27.0	2.9 *	18.6
Race of Householder							
White, non-Hispanic	37.9	52.1	40.4	43.2	57.6	35.7	46.8
Black, non-Hispanic	61.6	47.2	47.3	43.5	39.9	24.1	36.8
Hispanic	0.2	0.1	11.1	11.6	0.5	25.8	12.5
Asian or Pacific Islander	0.2	0.2	0.5	0.4	0.2	11.6	2.0
American Indian or Alaskan Native	0.2	0.3	0.5	1.2	1.4	0.7	1.1
Other	0	0.1	0.2	0.1	0.4	2.1	0.8
Household Composition							
Single, no children	34.9	34.7	34.5	32.6	35.0	14.1	35.0
Single, with children	43.8	39.6	43.9	43.8	40.8	71.3	47.8
Married, no children	9.5	8.7	7.0	7.1	7.9	1.2	4.7
Married, with children	11.8	17.0	14.6	16.4	16.3	13.4	12.6
Female-Headed Households	71.0	71.6	74.6 *	74.0 *	72.1	78.6 *	75.8 *
Elderly Households	30.8	28.4	26.9 *	25.1 *	28.3	2.9 *	19.3 *
Households with Earned Income	27.5	27.7	25.6	27.0	26.8	11.7 *	19.6 *
Households Receiving AFDC	22.9	28.3 *	30.7 *	30.4 *	29.4 *	73.9 *	41.9 *
Households with Excess Shelter Deduction	56.9	57.2	62.0 *	60.0	63.2 *	65.7 *	68.3 *

TABLE II.3 (continued)

Characteristic	Alabama	East South Central Division	South Region	15 States with Lowest Maximum AFDC Payments	15 Most Rural States	California ^a	United States as a Whole
Income as a Percent of the Poverty Level							
0	9.0	9.4	9.7	10.1	7.6	•	•
1 to 50	34.5	33.5	36.2	36.4	32.0	11.2	7.1
51 to 100	49.1	49.2	47.2	46.2	52.0	3.7	31.6
101 to 150	7.4	7.9	6.9	7.2	8.3	79.0	53.5
						5.1	7.4
Average Values:^b							
Monthly AFDC payment	\$122	165 •	223 •	210 •	236 •	649 •	389 •
Monthly food stamp benefit	\$146	144	145	150	138 •	102 •	130 •
Percent of total benefits comprised of food stamps ^c	92.0	87.8 •	83.3 •	84.5 •	83.2 •	30.1 •	65.5 •
Monthly gross income	\$437	451	449	453	462	668 •	476 •
Monthly net income	\$226	231	224	227	239	418 •	247 •
Monthly housing expense	\$195	207	222 •	218 •	227 •	355 •	268 •
Monthly excess shelter deduction	\$97	104	109 •	107 •	108 •	128 •	122 •
Sample Size (No. of households)	1,239	5,362	19,849	21,069	14,581	2,241	62,251

SOURCE: Tabulations from the USDA/FNS 1989 Integrated Quality Control System.

^aCompared with the Alabama food stamp households, the households in these groups are statistically different at the 95 percent confidence level, based on chi-square tests (for distributions) and t-tests (for proportions and means). Values for the state groups include Alabama; however, we excluded Alabama from the groups and calculated new means and distributions before the statistical tests were performed, thus increasing the power of the comparisons.

^bIn California, SSI recipients (individuals who are age 65 or older, blind, or disabled) receive cash food benefits as part of their SSI payments. SSI households are not included in the statistics shown for food stamp households in California.

^cFor households with values greater than zero.

^dTotal benefits consist of AFDC, GA, and food stamps. The percentages shown are based on all households with food stamps and either zero or positive AFDC and GA incomes.

AFDC = Aid to Families with Dependent Children; SSI = Supplemental Security Income; GA = General Assistance.

holds to use some of their cash food benefits to cover nonfood costs. That pressure might increase overall changes in food-purchasing patterns when benefits are cashed-out.

On the following characteristics, food stamp households in Alabama *are not* significantly different from those in the four state groups, but *are* significantly different from those in California and in the United States as a whole:

- Average household size--food stamp households are larger in California than in Alabama and are smaller in the United States as a whole than in Alabama
- The proportion of households with earned income--the proportions are smaller in California and in the United States as a whole than in Alabama
- The distribution of income as a percent of the poverty level--food stamp households in the United States as a whole, and in California in particular, are more likely than food stamp households in Alabama to have incomes above 50 percent of the poverty level
- Average monthly gross and net incomes--food stamp households in California and in the United States as a whole have larger amounts of both types of income than do food stamp households in Alabama

Alabama food stamp households are significantly different from all of the food stamp households examined in the state groups, in California, and in the United States as a whole on the following characteristics:

- Age distribution of householder--food stamp households in Alabama are significantly less likely to be headed by a person younger than 21 years of age and are significantly more likely to be headed by a person aged 60 years or older
- Race of householder--the food stamp householder in Alabama is significantly more likely to be black
- Household composition--food stamp households in Alabama are significantly less likely to consist of a married couple with children and are significantly more likely to consist of a married couple without children
- Proportion of households receiving AFDC--the proportion of food stamp households receiving AFDC is significantly lower in Alabama

- Average monthly AFDC payment--the average AFDC payment received by food stamp households who also participate in the AFDC Program is much smaller in Alabama
- Percent of total benefits comprised of food stamps, where total benefits consists of food stamps, AFDC, and General Assistance (GA)--the percent is significantly higher in Alabama

C. SUMMARY

Alabama households, in general, and Alabama food stamp households, in particular, differ from their counterparts in other states or groups of states along a number of dimensions. Overall, Alabama is poorer and more rural and is growing more slowly than is the United States as a whole. Its low-income population depends heavily on food stamps, because AFDC provides low benefit levels, and GA is not available. Compared with the United States as a whole, and with the groups of states specified, a larger proportion of Alabama food stamp households are elderly, and, although a larger proportion is working, income levels are relatively low.

These differences in characteristics might reduce the degree to which the results of the Alabama Cash-Out Demonstration can be generalized to other states and to the United States as a whole. If the elderly have more stable food-purchasing patterns than do the nonelderly, the higher percentage of elderly food stamp households in Alabama might hold down overall changes in purchasing behavior when food benefits are cashed-out. However, the low AFDC payments and income levels in Alabama, and the relatively high proportion of total benefits comprised of food stamps, might create financial constraints that tend to increase changes in purchasing behavior when the food benefit form is converted. Relative to food stamp households in Alabama, food stamp households in the comparison groups of states had neither as high a proportion with elderly members nor the same degree of financial constraint, although the other states in the East South Central Census Division resembled Alabama most closely along these dimensions. Therefore, results of the Alabama Cash-Out Demonstration might generalize most reliably to the other states in the East South Central Census Division. However, caution should be used when generalizing the results to food stamp

households in other states in the South Census Region, or to states that share Alabama's low-AFDC or rural status, as these states differ from Alabama on a number of important characteristics. Finally, the many large differences in characteristics of food stamp households in Alabama relative to those in California and in the United States as a whole suggest that the results of the Alabama Cash-Out Demonstration will generalize poorly to those areas.

The limited degree to which the results of the Alabama Cash-Out Demonstration can be generalized is the reason why the USDA chose to conduct a contemporaneous "pure" food stamp cash-out demonstration in a site (San Diego County, California) that is highly urbanized, has high average income levels, and provides large AFDC payments. The findings from the Alabama and San Diego evaluations might provide a good indication of how a large proportion of the nationwide food stamp caseload would respond to cash-out.

III. DATA AND METHODS

This chapter describes the data and methods underlying the analyses of the impact of cash-out on recipient outcomes.¹ We obtained the data from a household survey and from focus group discussions. Section A describes the sampling and data collection procedures used to obtain data from food stamp recipients in the demonstration counties. Section B describes the analysis strategy. Section C defines key measures used in the analyses of the household survey data. Section D describes the size and characteristics of the samples of check and coupon households.

A. DATA FROM FOOD STAMP HOUSEHOLDS IN ALABAMA

We used two complementary data collection methodologies to obtain data from households that were participating in the Food Stamp Program (FSP) when the Alabama Food Stamp Cash-Out Demonstration was in effect. The first methodology was a survey of coupon and check households, and the second was focus group discussions with check recipients who had previously received coupon benefits. We discuss these data collection methodologies in the next two subsections.

1. The Household Survey

The first methodology that we used to collect data from FSP recipients was a survey of a stratified random sample of 2,386 food stamp households, which consisted of 1,131 check recipients and 1,255 coupon recipients. We chose the size and configuration of the sample in response to the specifications of the U.S. Department of Agriculture (USDA) that (1) the evaluation be capable of detecting a 10 percent reduction in food use resulting from cash-out,² and (2) this precision criterion

¹We describe the data collection procedures used to obtain data for analyzing the impact of the demonstration on program administration in Volume II, Chapter IX.

²More precisely, FNS specified that the evaluation must be capable of detecting a 10 percent reduction in food use with 80 percent power. That is, if cash-out actually caused a 10 percent reduction in food use, then the sample for the evaluation must be sufficiently large that an analyst would have an 80 percent probability of concluding from a statistical test based on the sample data (continued...)

be attainable not only for the entire sample, but also for two subpopulations of the sample, residents of urban counties and residents of rural counties.

The survey instrument, which required an average of 2 hours and 11 minutes to administer, obtained detailed data from the respondents on their households' demographic composition, income, consumption expenditures, food-shopping patterns, attitudes toward the FSP, and, most importantly, the types, quantities, and prices of the foods that they used during the week preceding the interview.^{3,4} Appendix A contains additional details about the instrument.

a. Sampling and Data Collection Procedures

At the outset of the demonstration, Alabama's counties were divided into two strata, urban and rural, with each stratum including approximately one-half of the state's food stamp population. Random samples of ten rural counties and two urban counties were then selected to participate in the demonstration, with probabilities of selection proportional to size.

After the counties had been selected, households were selected into the demonstration in two phases. In the first phase, the Alabama Department of Human Resources (DHR) used an algorithm designed by MPR to randomly select equal numbers of experimental (check) and control (coupon) households from each demonstration county. When executing the selection algorithm, DHR used data on the active food stamp caseload in the demonstration counties as of April 27, 1990. In May

²(...continued)

that a reduction did occur. FNS further specified that the statistical test must have a 95 percent confidence level. This specification means that the test criterion that must be met in order to conclude that cash-out caused a reduction in food use must be sufficiently demanding that, if met, there is a 95 percent probability that a reduction in food use actually occurred, and only a 5 percent chance that it did not. The 80 percent power and 95 percent confidence requirements are conventional standards for evaluation research.

³We present additional information about the time required to administer the household survey instrument in Appendix A.

⁴The same instrument was used in the evaluation of the San Diego Cash-Out Demonstration and in the cash-out component of the evaluation of Washington State's Family Independence Program.

of 1990, DHR began issuing food stamp checks to the households that had been selected into experimental status during this first phase of the demonstration.

The second phase of the demonstration began on April 28, 1990, and lasted until August 31, 1990. During this phase, DHR used a variant of the phase-1 selection algorithm to randomly assign new FSP households to experimental or control status. The selection probabilities were the same as those in phase 1. This phase ensured an adequate representation of new FSP households in the demonstration. All experimental households, regardless of when they were selected into the demonstration, continued to receive food stamp benefits in the form of checks through December of 1990.

At the end of June of 1990, 2,004 experimental households and 2,012 control households were active participants in the FSP. We selected all of these households into the sample for the household survey. In September of 1990, we selected into our sample an additional 249 experimental households and 221 control households that had entered the FSP subsequent to the end of June and that were active participants at the end of August. Thus, the total sample consisted of 4,486 households: 2,253 treatment households and 2,233 control households.

We randomly ordered the sample households and released them to field interviewers as needed, until we attained our target of 2,400 completed interviews. We actually released 3,544 of the sample households, of which 480 were not eligible to be interviewed because of death, migration, or exit from the FSP. We obtained data on household composition, income, and attitudes toward the FSP from 2,386 of the remaining 3,064 released households (1,131 experimental households and 1,255 control households), for an overall response rate of 78 percent. Some of the responding households provided no data on food use. We were able to obtain complete data, including data on food use, from 75 percent of the eligible sample households that were released for interviewing. The result of these procedures was a sample that, as a reasonable approximation, can be considered to be representative

of the Alabama food stamp caseload in 1990. (Section E of Appendix A provides additional information on the survey response rates.)

Field staff fully worked all released households from August 4, 1990, through November 18, 1990. As each sample household was released to the survey field staff, an interviewer attempted to conduct an in-person screening interview (the screener) with the household's principal food purchaser and preparer. During that initial contact, the interviewer ascertained whether the household currently was receiving food stamps. If it was, the interviewer asked the respondent to participate in the survey and offered a \$20 incentive to do so (payable on completion of the main interview). The interviewer also obtained demographic data on each member of each screened household and on the household's food-shopping patterns for the preceding month. Toward the end of the screener, the interviewer explained that the principal objective of the survey was to gather data on all foods used by the household during the subsequent seven days and asked that the respondent save the labels of foods used during that period. (See Section III.A.1.b for the definition of "household food use.") The interviewer also asked the respondent to keep additional records, including shopping lists, menus, grocery receipts, and labels from food packages, cans, and bottles.

Seven days after the screener was conducted, the interviewer returned to administer the main survey instrument. The interviewer requested that the respondent refer to the food labels and records in order to respond to the survey's structured questions on the type, quantity, price, and related characteristics of each food item used by the household during the seven-day reporting period.

After completing survey field operations, the information on the type, quantity, and price of each food item was used to construct measures of the aggregate money value and nutritional content of the food that was used. In this report, the aggregate money value and nutritional content of food used are key outcome measures in the analyses of cash-out's impact on households. Appendix C provides additional details on the data file construction and editing procedures for the household survey.

b. Data on Household Food Use and Nutrient Availability

The use of food by food stamp households is a key issue that we address in this study. The household survey provides detailed information on food used from the household food supply during the seven days preceding the interview. The survey's measure of food used includes all food from the household food supply that was consumed at home, food that was carried from the home and eaten elsewhere, food that was prepared elsewhere (including "fast food" and delivered food) and then brought into the home and consumed, food for humans that was fed to pets, and food that was discarded after being prepared. The measure excludes food that was brought into the home but was not used or prepared, food that was given away or sold to persons outside of the household, ordinary pet food, and food that was given to animals for commercial purposes. The measure of food used includes food that was purchased with cash, credit, or food stamps; food that was received through other food-assistance programs, such as the Special Supplemental Food Program for Women, Infants, and Children (WIC) and local food banks; food that was home-produced; and food that was received as a gift or as payment-in-kind.

As noted, respondent households had been contacted at least seven days before the actual interview and had been asked to maintain records that would help to provide information on food use. For each food item used from the household food supply during the seven days, the interviewer recorded the type of food, its form (fresh, canned, or frozen), the quantity used, the price paid (if appropriate), and its source (purchased, WIC voucher, home-produced, gift, or in-lieu of payment). The interviewer also collected data on the number and type of meals (morning, noon, and evening) eaten from household food supplies by household members and others, the number of snacks and refreshments eaten by guests, and the number of meals eaten away from home by household members.

The data on the prices and quantities were used to analyze the impact of cash-out on two key measures of household food use: (1) the quantity of food used at home, and (2) the money value

of food used at home. In addition, we used data on the quantity of each food item used from the household food supply to calculate the availability of food energy and certain nutrients.⁵ In Section III.C.2, we discuss these measures of household food use and nutrient availability, as well as other key outcome measures, in greater detail.

2. The Focus Group Discussions

The second of the two methodologies that we used to collect data from FSP recipients was focus group discussions. We conducted the discussions with four groups in November of 1990. We conducted two of the groups in rural Fayette County, and two in Birmingham. One group in each location was comprised of elderly FSP recipients, and the other was comprised of nonelderly recipients.

We identified and recruited focus group participants from the same FSP caseload data file (April 1990) that we had used to select the household sample for the recipient survey. To be considered for the focus groups, households had to meet two criteria: (1) they had to be currently receiving food stamp benefits in the form of checks and had to have received coupon benefits in the past, and (2) they had to have a telephone.⁶

We conducted the focus groups in the conference rooms of community centers. Using a topic guide, survey professionals led the groups through structured discussions of such topics as relative preferences for checks or for coupons, check-cashing experiences, and the effects of the form of the food stamp benefit on household budgeting and expenditure decisions. Appendix D contains

⁵We used a USDA nutrient data base to convert the survey data on the quantity of food used to data on nutrient availability. The data base provides information on the nutrient content per pound of roughly 4,000 foods and food combinations in the form in which they enter the household, with adjustments for cooking losses and inedible components of food. Hepburn (1982) provides a description of the USDA's nutrient data base.

⁶We imposed these eligibility requirements because we wanted the focus group participants to discuss their experiences with *both* food stamp coupons and checks, and because we wanted to recruit the participants via telephone so as to minimize recruitment costs.

additional details on the focus groups, including the criteria used to select participants, recruitment, procedures for collecting the data, and the characteristics of participants.

B. THE ANALYSIS STRATEGY

We used the household survey data to conduct three related analyses of the impact of cash-out on FSP households: (1) a comparative analysis of mean values of check and coupon household outcomes, (2) a comparative analysis of regression-adjusted mean values, and (3) an econometric analysis of the marginal propensity to consume food out of coupons, checks, and ordinary cash income. The findings from the focus group discussions were primarily used to enhance our understanding of the behavior underlying the results from the household survey. The remainder of this section contains overviews of the analyses of the household survey and focus group data.

1. Analyses of the Household Survey Data

a. Comparative Analysis of Mean Values

Reflecting the strength of the randomized design of the demonstration, our principal approach to the analysis of the household survey data was to compare check and coupon households on several key outcomes, and to assess whether the outcomes of the check households differed from those of the coupon households. More formally, we compared the mean values of outcome measures for the samples of coupon and check recipients and conducted statistical tests (t-tests) for the significance of the observed differences. If the check-coupon household difference in the mean values of a particular outcome was statistically different from zero, then, given the experimental design of the demonstration, we concluded that cash-out had affected that outcome.

For purposes of illustration, consider the analysis of the impact of cash-out on total expenditures for food. The hypothesis is that, because food stamp benefits under cash-out no longer are an "in-

kind" benefit earmarked specifically for food, recipients will reduce their food expenditures. Thus, we test the null hypothesis,

H_0 : *No Check-Coupon Household Difference in Expenditures for Food,*

against the alternative hypothesis,

H_A : *Check Households Spend Less than Coupon Households for Food.*

The test of this hypothesis is based on simple check-coupon household differences in the mean values of food expenditures. If the value of the "test-statistic" is less than the critical value -1.64 (which is the value for a 95 percent confidence level, with a one-tailed test), then we reject the null hypothesis. That is to say, in this case, data from the household survey on the simple difference in mean values of expenditures for food between check and coupon households support the alternative hypothesis that cash-out reduced household expenditures for food.

Note that, because we have a priori information in this case on the expected direction of the impact of cash-out (that is, cash-out might reduce food expenditures), the hypothesis that we test is directional and implies the use of a one-tailed hypothesis test. For the majority of outcomes under consideration, we will have a priori information on the expected direction. However, for some outcomes, such as the quantities of specific types of foods used at home or the number of shopping trips per month, we were uncertain a priori of the likely direction of the impact; for those outcomes, we used a two-tailed variant of the illustrated hypothesis test.⁷

⁷As an example of a two-tailed hypothesis test, consider the impact of cash-out on the number of shopping trips per month to grocery stores. We test the null hypothesis, no check-coupon household difference in the number of shopping trips per month to grocery stores, against the alternative hypothesis, check households made either more or fewer trips per month to grocery stores than did coupon households. If the value of the "test-statistic," in this case, the difference in the mean values of the number of shopping trips per month to grocery stores for check and coupon households divided by the square root of the variance of this difference, is less than the critical value -1.96 or greater than the critical value +1.96 (for a 95 percent confidence level, with a two-tailed (continued...)

When assessing the cross-sectional, random-assignment, experimental design for this evaluation, it may be useful to consider several alternative designs that we did not adopt. One possible design is a "before and after" approach, which would have entailed a first round of data collection from a sample of coupon households, followed by cash-out, followed by a second round of data collection from a different sample of check households. We rejected this design because of potential difficulties in distinguishing the effects of cash-out from the effects of changes during the interval between the two rounds of data collection in other factors affecting food use, and because of the increased cost of collecting data during two time periods.

A second possible design is a "double-difference" approach, which would have entailed random assignment as well as two rounds of data collection from the same sample of households. Under this approach, the first round of data collection would have occurred prior to cash-out. That round would have been followed by the random assignment of households in the evaluation sample to treatment or to control status, followed (with a lag of several months) by a second round of data collection from both the experimental and control households. This design would have enabled us to better examine the dynamics of how households adjust to the conversion from coupons to checks. However, it would have been more expensive than our chosen design to implement, due to the need to (1) collect data during two different periods of time, and (2) re-locate, during the second period, the households that had provided data during the first period. In addition, the double-difference design would have required a delay in the commencement of cash-out, because we would have had to develop and implement the data collection procedures before the first round of data collection and, hence, well before the commencement of cash-out.

⁷(...continued)

test), then we reject the null hypothesis of no difference. That is to say, in this case, data from the household survey support the alternative hypothesis, that cash-out affected the number of shopping trips per month to grocery stores. That estimated impact can be positive or negative, depending on the sign of the difference in the mean values.

b. Comparative Analysis of Regression-Adjusted Mean Values

Simple differences in the mean values of outcome variables between the sample of check recipients and the sample of coupon recipients are unbiased estimates of the true effects of cash-out; however, those estimates might not be the most precise estimates. Accordingly, for the outcome measures of greatest interest (those based on the household food-use data), we also used regression analysis to control for variation in the outcome measures arising from a limited number of household characteristics.

However, in our evaluation, the regression-adjusted estimates did not prove to be substantially more precise than the simple-difference-in-means estimates. Furthermore, the conclusions that can be drawn from the regression-adjusted results essentially are the same as those that can be drawn from the simple differences in mean values. Therefore, the estimates of the effects of cash-out that we present in the body of this report were obtained by using the simple-difference-in-means approach. We occasionally refer to the regression-adjusted results, but their detailed presentation is relegated to Appendix E.

c. Econometric Analysis of the Marginal Propensity to Consume Food

The analyses described in the previous two subsections are designed to provide estimates of the *overall* effects of cash-out on the key outcome variables under consideration. It is also of interest to compare the *marginal* impacts of check benefits and of coupon benefits, that is, to determine by how much the impact of an additional dollar of check benefits differs from the impact of an additional dollar of coupon benefits. Estimates of marginal impacts can help to provide a richer understanding of the effects of cash benefits. The estimates also allow us to directly compare our results with those of a number of earlier studies that have focused on the marginal impacts of food stamp benefits on food expenditures.

To conduct a marginal-impact analysis, we developed econometric models that estimate the marginal impacts of the two forms of food stamp benefits. The structure of these models is consistent

with those of models used in earlier studies to estimate the effects of an additional dollar of food stamp benefits on the use of food at home.⁸ This structural consistency ensures the comparability of the estimates of the marginal effects of food stamp benefits produced by this study with those produced by earlier studies. However, although of considerable interest, the econometric estimates of the marginal propensities to consume food out of food stamp coupons and out of food stamp checks are not central to the basic findings of this report. Therefore, we present these econometric estimates in Appendix F.

2. Descriptive Analyses of Data Obtained from Focus Groups

All of the formal statistical results presented in this report are based on data collected in the sample survey of food stamp recipients. Because focus group results are based on a small number of nonindependent observations, they cannot be used to test hypotheses about recipient behaviors in any formal statistical sense. Therefore, we used the findings from the focus group discussions to supplement the findings from the household survey. To highlight recipients' perceptions toward and experiences with cash-out, we present quotations from focus group participants in various sections of Chapter VI. In addition, we use findings from the focus group discussions to enhance understanding of the behavior underlying the statistical results presented in Chapter IV (which examines household food use) and in Chapter V (which examines household shopping patterns and food and nonfood expenditures).

C. DEFINITIONS OF KEY ANALYSIS VARIABLES

The survey of coupon and check households provides information on household characteristics, income, program participation, expenditure patterns, food use, and attitudes toward check and coupon benefits. This section defines the key variables used in the analyses of the household survey data, including household food use, nutrient availability, and food and nonfood expenditures. We begin

⁸For a review of these earlier studies, see Fraker (1990).

the section with a discussion of two measures of household size that were used to scale the key outcome variables. The next three subsections define key outcome measures concerning, respectively, household food use, nutrient availability, and food and nonfood expenditures. Table III.1 lists and defines the main analysis variables.

1. Measures of Household Size and Composition

The principal measure of household size used in this report is the *food consumption unit* (FCU), that is, the group of individuals that usually eats from the home food supply. We determined the size of the FCU on the basis of two questions asked during the interview about each person living in the dwelling unit: (1) whether the person is covered by food stamp benefits, and (2) if not, whether the person eats from the home food supply. Therefore, the size of the FCU cannot exceed that of the household, that is, the total number of persons living in the dwelling unit. On the other hand, the FCU might diverge in either direction from the official *food stamp unit* (FSU), that is, the group of individuals that is included in the food stamp case. The size of the FCU and the size of the FSU could differ either for legitimate reasons or for reasons that might entail fraud under FSP regulations.

When computing the size of the FCU, we treated all household members identically. However, FCUs of equal size might have different requirements for food used at home. The differences might depend on the age, gender, and pregnancy and lactation status of household members; the proportion of meals eaten at home by members of the FCU; and the number of meals served to guests. Therefore, to account for these differences, we use two modified measures of the FCU in this report: (1) the FCU in *adult male equivalents* (AMEs), (2) and the FCU in *equivalent nutrition units* (ENUs).⁹ We describe these measures in the next two subsections.

⁹Henceforth, the term "household" refers to the FCU, unless explicitly stated otherwise.

TABLE III.1

DEFINITIONS OF KEY VARIABLES USED IN THE ANALYSES OF THE HOUSEHOLD SURVEY DATA

Variable	Definition
Number of Persons in the Household	
Food Stamp Unit (FSU)	Persons living in the dwelling unit who are covered by the recipient's food stamp benefits (ie, household members who are included in the food stamp case).
Food Consumption Unit (FCU)	Persons living in the dwelling unit who are covered by the recipient's food stamp benefits and/or who eat from the food stamp recipient's household food supply.
Adult Male Equivalents (AME)	Accounts for the age and gender of the members of the FCU. Each member of the FCU receives a "weight" determined by the nutritional recommendation for that member for food energy (or another nutrient) relative to the nutritional recommendation for an adult male aged 23 to 50 years. The sum of these weights gives FCU size in AMEs.
Equivalent Nutrition Units (ENU)	Accounts for the age and gender of the members of the FCU and the proportion of meals that they eat from the household food supply. Each member of the FCU receives a "weight" determined by the nutritional recommendation for that member for food energy (or another nutrient) relative to the nutritional recommendation for an adult male aged 23 to 50 years and by the proportion of meals eaten at home. Meals served to guests are also taken into account. The sum of these weights gives FCU size in ENUs.
Household Food Use	
Quantity of Food Used at Home per ENU per Week Total By food group	Quantities of food used (in pounds per person per week) for all food used at home and separately for the 31 food groups corresponding to the Thrifty Food Plan (TFP) plus alcoholic beverages, where "per person" refers to per-ENU.
Total Money Value of Food Used at Home Per household Per AME Per ENU	Money value (in dollars) of all purchased and nonpurchased food used at home during the seven-day reporting period. The measure is obtained by multiplying the quantity of each food item used by its reported or imputed price and summing the money values of each individual food item used at home. Scaled measures of the money value of food used per AME and per ENU are derived by dividing the money value of food used at home per household by measures of household size in, respectively, AME and ENU.
Money Value of Purchased Food Used at Home Per household Per AME Per ENU	Money value (in dollars) of all purchased food used at home during the seven-day reporting period. It is obtained by multiplying the quantity of each purchased food item used at home by its reported price and summing the money values of each individual purchased food item used at home. Scaled measures of the money value of purchased food used per AME and per ENU are derived by dividing the money value of purchased food used at home per household by measures of household size in, respectively, AME and ENU.

TABLE III.1 (continued)

Variable	Definition
Money Value of Nonpurchased Food Used at Home Per household Per AME Per ENU	Money value (in dollars) of all nonpurchased food used at home during the seven-day reporting period, where nonpurchased food consists of home-produced food, food received as a gift or in-lieu of payment, and food received through other food-assistance programs. It is obtained by multiplying the quantity of each food item used at home that was not purchased by an imputed price and summing the money values of each individual nonpurchased food item used at home. Scaled measures of the money value of nonpurchased food used per AME and per ENU are derived by dividing the money value of nonpurchased food used at home per household by measures of household size in, respectively, AME and ENU.
Money Value of Food Used at Home per ENU, by Food Group	Money value (in dollars per week) of food used at home per ENU, by the 31 food groups in the TFP plus alcoholic beverages. The value is obtained for each aggregated food group by summing the money values of the individual food items comprising that food group and dividing the result by household size in ENU.
Share of Money Value of Food Used at Home per ENU, by Food Group	The share of money value of food used at home per ENU, by food group, is the percentage of the total money value of food used by a household from its home food supply per person that is accounted for by each of the 31 TFP food groups plus alcoholic beverages.
Availability of Nutrients from Food Used at Home	
Nutrient Availability per ENU	Nutrients available from all food used by a household from its home food supply during the seven-day period expressed on a per-ENU basis. It is calculated by multiplying the nutrient content per pound of each food item by the number of pounds used of each food item and summing across the products for each food item. The nutrients examined are food energy, protein, and seven micronutrients that are considered to be potentially problematic from a public health perspective: vitamin A, vitamin C, vitamin B ₆ , folate, calcium, iron, and zinc.
Nutrient Availability per ENU Compared with Recommended Dietary Allowances (RDAs)	Average nutrient availability per ENU as a percent of the RDAs, calculated for food energy, protein, and the seven micronutrients under consideration.
Households Attaining RDAs	Percentage of households whose availability of nutrients per ENU equals or exceeds the RDAs, calculated for food energy, protein, and the seven micronutrients under consideration.
Nutrient Densities	Nutrient availability per 1,000 kilocalories of food energy calculated for the seven micronutrients under consideration. Calculated by dividing the availability of each micronutrient by the availability of food energy.
Nutrient Availability per Dollar of Food Used at Home	Nutrient availability per dollar of food used at home calculated for protein and the seven micronutrients under consideration. It equals the availability of each nutrient divided by the total money value of food used at home (in dollars per week).
Food Energy from Protein, Carbohydrate, and Fat	The proportions of food energy derived from protein, carbohydrate, and fat.

TABLE III.1 (continued)

Variable	Definition
Food Expenditures	
Expenditures for Food Used at Home (Using Data from the Main Questionnaire Only)	The monthly money value of purchased food used at home (obtained by multiplying the weekly money value of purchased food used at home by 4.3 weeks.)
Expenditures for Food Used at Home (Using Data from the Screener)	The monthly expenditures for food from supermarkets, neighborhood grocers, convenience stores, and specialty stores as reported in the screener to the household survey.
Expenditures for Food Used Away from Home (Using Data from the Main Questionnaire Only)	The household's reported total expenditure for meals, snacks, and beverages that were eaten at restaurants, bars, cafeterias, cafes, and fast food places during the seven days preceding the interview and the amount paid in the calendar month preceding the interview for reduced-price or full-price school meals and for meals or snacks received at a day care home or center (if the payment for the food was separate from the payment for the care). Converted to monthly value by multiplying by 4.3.
Total Expenditures for Food (Using Data from the Main Questionnaire Only)	The sum of the money value of purchased food used at home (from the main questionnaire) and expenditures for food used away from home (from the main questionnaire).
Total Expenditures for Food (Using Data from the Main Questionnaire and the Screener)	The sum of expenditures for food used at home (from the screener) and expenditures for food used away from home (from the main questionnaire).
Food and Nonfood Expenditure Shares	
Food and Nonfood Expenditure Shares (Using Data from the Main Questionnaire Only)	The proportion of all reported expenditures allocated to a specific budget category computed for total food (and separately for its components, food used at home and food used away from home), and for the nine categories of nonfood items--housing, utilities, medical, transportation, clothing, education, dependent care, recreation, and personal items. Uses money value of purchased food used at home as the measure of expenditures for food used at home.
Food and Nonfood Expenditure Shares (Using Data from the Main Questionnaire and the Screener)	The proportion of all reported expenditures allocated to a specific budget category computed for total food (and separately for its components, food used at home and food used away from home), and for the nine categories of nonfood items--housing, utilities, medical, transportation, clothing, education, dependent care, recreation, and personal items. Uses expenditures for food at stores (from the screener) as the measure of expenditures for food used at home.

a. Household Size in AMEs

Household size in AMEs adjusts household size for the ages and genders of the household members. The adjustment procedure weights each household member by the recommended dietary allowance (RDA) for that member for a given nutrient, typically, food energy, relative to the RDA for that nutrient for an adult male aged 25 to 50 years.¹⁰ The sum of these weights gives household size in AMEs.

For example, consider the following household, with a male and female householder each aged 40 years, a boy aged 15 years, and a girl aged 12 years:

Household Member	RDA for Food Energy (Kilocalories)	Relative Need
Male, aged 40	2,900	1.00
Female, aged 40	2,200	0.76
Male, aged 15	3,000	1.03
Female, aged 12	2,200	<u>0.76</u>
Household size in adult male equivalents (AMEs)		3.55

The number of AMEs in this household, based on the relative needs of the household members for food energy, is 3.55.

b. Household Size in ENUs

Household size in ENUs adjusts household size for the ages and genders of the household members, as well as for the proportion of meals eaten from the household food supply and meals served to guests. The adjustment weights each household member by the RDA for that member for

¹⁰We used the 1989 revised RDAs, which were determined by the National Research Council of the National Academy of Sciences (1989b). Pregnancy and lactation status are also taken into account in these recommendations and in the AME calculations.

a given nutrient, such as food energy, relative to the RDA for that nutrient for an adult male aged 25 to 50 years and by the proportion of meals eaten at home. It also adjusts for meals served to guests. The sum of these weights gives household size in ENUs.

Continuing with the previous example, assume that the male householder ate two-thirds of his weekly meals at home, and that the other household members ate all of their meals at home:

Household Member	Relative Need	Proportion of Meals Eaten at Home	Equivalent Nutrition Units
Male, aged 40	1.00	0.67	0.67
Female, aged 40	0.76	1.00	0.76
Male, aged 15	1.03	1.00	1.03
Female, aged 12	0.76	1.00	<u>0.76</u>
Household size in equivalent nutrition units (ENUs)			3.22

The household size in ENUs for this hypothetical household, based on the relative needs of the household members for food energy, is 3.22 persons.

2. Measures of Household Food Use

Food used at home (household food use) refers to all food and beverages used from the household food supply during the seven days preceding the interview (see Section III.A.1.b for a more complete description of this measure). We used the information obtained during the interview on the types, quantities, and prices of the foods that food stamp recipients used at home in order to calculate the following four measures of household food use: (1) the quantity (in pounds per week) of all food used at home and, separately, for 32 food groups, (2) the money value (in dollars per week) of all food used at home and, separately, for purchased and nonpurchased food used at home, (3) the money value of all food used at home, by food group, and (4) the share of the money value of all food used at home, by food group. We describe these measures in the next four subsections.

a. Quantities of Food Used at Home

For the analyses of the quantities of food used at home, we examined the average quantities of food used (in pounds per person per week) for all food used at home and separately for 32 food groups--the 31 food groups corresponding to the USDA's Thrifty Food Plan (TFP), plus alcoholic beverages. "Per person" in these analyses always refers to per-ENU.

b. Money Value of Food Used at Home

We obtained the money value of a particular food item used at home by a household by multiplying the quantity (in pounds) used of the food item by its unit price.¹¹ Food that was not purchased directly, but that was used by the household (such as food obtained through WIC vouchers, home-produced food, or food received as a gift or in-lieu of pay), was valued at the average price per pound that the households reporting its purchase and use paid for that food item. We obtained the total money value of food used at home (in dollars per week) by summing the money values of the individual food items.

We used several outcome measures for the analysis of the money value of food used at home. First, we examined the money value of purchased food used at home. This variable is of interest because it reflects expenditures for food used at home--the factor that the FSP directly affects. Second, because food received as gifts, food obtained through WIC vouchers, and food obtained from direct food-assistance programs are potential substitutes for purchased food, it is of interest to examine whether the demonstration had effects on nonpurchased food used at home. Third, we examined the value of all food used at home, that is, the sum of the previous two measures.

¹¹During the interviews, respondents were asked about the quantity of each food *purchased* and the total purchase price. We subsequently used this information to compute the unit price of each food purchased. We used the unit price to compute the money value of food *used*. As part of the editing that we performed to ensure as much accuracy as possible in the data set, food items for which the computed prices were very high or very low in relation to the mean price of a food item were examined manually, using the hard-copy instruments. In some instances, no apparent errors were identified. In other cases, errors were identified and corrected. The quantity of the food purchased was most often in need of revision.

For each of the three measures, we calculated the total for the household, as well as two versions scaled by household size--the AME and ENU measures of household size.¹² The money value of total food used at home per household is simply the total money value of food used from the household food supply. We obtained the money value of total food used at home per AME and per ENU by dividing the household's money value of total food used at home by household size in, respectively, AMEs and ENUs. The measures for purchased and nonpurchased food used at home were defined analogously.

Note that, of the three measures of the money value of food used at home, we believe the results based on measures scaled by ENU are the most useful. This measure accounts for family size and composition and, because it controls for any shifting of meals from at-home to away-from-home, or vice-versa, shows the effects of cash-out on total (purchased and nonpurchased) food used at home by those who use the home food supply. Essentially, the ENU measure of household size, by taking into account the percentages of meals eaten at home, provides the best measure of the dependency of household members on the home food supply.

c. Money Value of Food Used at Home, by Food Group

We also present the mean values of the money value of food used per ENU, by food group (for the 31 food groups in the TFP plus alcoholic beverages). For any household, the money value of food used at home (in dollars per week) per ENU for each aggregated food group was obtained by summing the money values of the individual food items comprising the food group and dividing the result by household size in ENUs.

¹²The ENU measure of household size that was used to compute scaled measures of the money value of food used at home was based on the recommended intake of *food energy* (National Research Council, 1989b).

d. Share of Money Value of Food Used at Home, by Food Group

The *share of money value of food used at home, by food group*, is the percentage of the total money value of food used by a household from its home food supply that is accounted for by each of the 31 TFP food groups plus alcoholic beverages. When calculating mean shares, we have used averages of individual food stamp household shares for each food group. For purposes of illustration, an average expenditure share for check households for high-nutrient vegetables equalling 3.50 means that, for the average check household, of every dollar spent per week for food used at home, an average of 3.5 cents was devoted to high-nutrient vegetables.

3. Availability of Nutrients from Food Used at Home

When examining the effects of cash-out on the availability of nutrients from food used at home, we considered two types of nutrients: (1) *macronutrients*--protein, fat, and carbohydrate--which are the principal sources of food energy,¹³ and (2) *micronutrients*--vitamins, minerals, and trace elements --which are essential to the proper growth and maintenance of the human body.

The survey obtained data on food used by households, but not on food eaten by household members; consequently, the only nutrient measures that we can compute on the basis of the survey data are measures of nutrient availability. In this study, *nutrient availability* is defined as the nutrients available from all food used by a household from its home food supply during the seven-day period preceding the interview.¹⁴ Thus, for example, we computed a household's availability of calcium by multiplying the calcium content per pound of each food item by the number of pounds used of

¹³Alcohol (ethanol) is the only other significant source of food energy. The survey data for this study show that alcohol provided only about 0.1 percent of the energy obtained by food stamp households in Alabama from food used at home. Consequently, we have omitted alcohol from the analysis of food energy and its sources that is presented in Chapter IV.

¹⁴*Nutrient intake* is defined as the nutrients provided by foods actually eaten by household members and guests.

each food item and summing across the products across all food items. We derived the availability of food energy and other nutrients from the household food supply analogously.

In this study, most measures of nutrient availability are reported on a per-ENU basis.¹⁵ Thus, continuing with the example, the availability of calcium from food used at home per ENU equals the availability of calcium in the food used by a household from its home food supply divided by the number of ENUs who draw on the household's home food supply for their meals, taking into account the proportion of meals consumed from the home food supply and the number of meals served to guests. When transformed in this way, the measure of nutrient availability can, subject to the qualifications given in the following section, be meaningfully compared with the RDA for an adult male, thus permitting an assessment of the *relative* nutritional adequacy across population groups of food used from the home food supply.

In the analyses of nutrient availability presented in Chapter IV, we calculate the mean values of seven measures. These measures are:

1. Availability of food energy and protein per ENU as a percent of the RDA
2. Percentages of households for which the availability per ENU of food energy and of protein equals or exceeds the RDA
3. The proportions of food energy derived from protein, carbohydrate, and fat
4. Nutrient availability per 1,000 kilocalories of food energy (calculated for the seven micronutrients under consideration)
5. Nutrient availability per ENU as a percent of the RDA (calculated for the seven micronutrients under consideration)

¹⁵For each nutrient considered in this study, we have computed a nutrient-specific measure of household size in ENUs. This measure of household size incorporates adjustments for: (1) the need of each household member for the nutrient in question, as indicated by his or her RDA for that nutrient, (2) the proportion of each member's meals that is eaten at home, and (3) meals served to guests. See the discussion in Section III.C.1 for more details. It should be noted that, for analysis of nutrient outcomes, the ENU measures used are specific to each nutrient. However, for analysis of dollar-denominated variables, the ENUs for food energy are used.

6. Percentages of households for which the availability per ENU of each of the seven selected micronutrients equals or exceeds the RDA
7. Nutrient availability per dollar of food used at home (calculated for protein and for the seven micronutrients under consideration)

The third and seventh measures require further discussion. Examining nutrient availability per unit of food energy is of interest because it provides a measure of the average nutrient content, or *nutrient density*, of food used. This measure can help us to understand reasons for observed changes in other nutrient outcome variables. For instance, suppose that cash-out was found to reduce the consumption of food energy. It would be of interest to determine whether the consumption of key nutrients had been reduced concomitantly, or, alternatively, whether households had avoided such reductions by switching to foods having higher nutrient densities.

When calculating, for each household, the nutrient availability per 1,000 kilocalories of food energy for the seven micronutrients, we divided the availability of each micronutrient per household by the availability of food energy. The mean values of these ratios equal the averages of individual food stamp household ratios for each micronutrient.

Similar considerations apply to the measure of nutrient availability per dollar of food used at home, which provides a measure of how many nutrients the households are receiving for their expenditures for food. To the extent that expenditures for food change, it is of interest to examine whether households increase the nutrient availability per dollar of food so that the decrease in expenditures is not fully reflected by a decrease in nutrients.

Nutrient availability per dollar of food used at home for protein and for each micronutrient under consideration equals the availability of each nutrient in a respondent household divided by the total money value of food used at home by that household. The mean values of these ratios equal the averages of the individual food stamp household ratios for each nutrient.

a. Limitations of RDAs and Nutrient Availability in Assessing Nutritional Adequacy

Many of the measures of nutrient availability used in this study entail either a comparison between the sample mean availability of a nutrient per ENU and the RDA for an adult male or a determination of the percentage of sample households for whom the availability of a nutrient per ENU equals or exceeds the RDA. It is important at the outset to note some limitations of using RDAs as standards for evaluating the nutritional adequacy of food used by households, as well as of using data on nutrient availability, rather than on nutrient intake.

RDAs for selected nutrients are established for demographic groups that are defined by age, gender, and pregnancy and lactation status. The RDA of a particular demographic group for a given nutrient reflects the average requirement of the members of the group for the *intake* of that nutrient, as well as the variability in their requirements. To accommodate that variability, for all nutrients except food energy, the RDA exceeds the mean requirement by a large margin.¹⁶ Therefore, if a demographic group's mean intake of a nutrient equals or exceeds the relatively high standard of the RDA, the probability of inadequate intake is quite low for members of that group. Furthermore, an individual whose intake of a nutrient other than food energy is less than the RDA for that nutrient might not be at nutritional risk, because the RDA exceeds the nutritional requirements of most individuals.

At the same time, the finding that a nutrient is available in an amount that equals or exceeds the RDA, either on average for all households or for specific households, does not necessarily mean that the supply of that nutrient is sufficient to permit the members of those households to have intakes of the nutrient that equal or exceed the RDA. Not all of the food used by a household from its home food supply is eaten by members or guests of the household; some is lost, wasted, or fed to pets. To the extent that such diversion of food occurs, the availability of nutrients from food used at

¹⁶"The RDA for energy . . . reflects the mean population requirement for each group, since consumption of energy at a level intended to cover the variation in energy needs among individuals could lead to obesity in most persons" (National Research Council, 1989, page 2).

at home will exceed the sum across all household members and guests of the intake of nutrients from that food. Thus, the *availability* of nutrients from the household food supply is likely to overstate the *intake* of nutrients by household members.

Consequently, the statistics on the availability of nutrients relative to the RDAs that we present in Chapter IV and that are based on the measures described in this chapter should be used to make only *relative* comparisons between check and coupon recipients of the nutritional adequacy of food used from the home food supply. A finding that the mean availability of a given nutrient equals or exceeds the RDA by a greater margin for one of the groups than for the other should be interpreted as indicating that the group for which the margin is larger is at less nutritional risk than the other group.¹⁷ Although availability below the RDA for a nutrient does not necessarily imply dietary inadequacy, the risk of dietary inadequacy increases as the mean availability of a nutrient falls further below the RDA. The finding that the proportion of households for which the availability of a nutrient equals or exceeds the RDA is greater for one group than for the other should also be interpreted in a relativistic fashion. The reader is cautioned to avoid drawing absolute conclusions from these findings about the number or proportion of coupon or check households that are at nutritional risk.

4. Food and Nonfood Expenditures

This section describes the four measures used to assess the impact of cash-out on food and nonfood expenditures. The measures are: (1) expenditures for food used at home, (2) expenditures for food used away from home, (3) total expenditures for food, and (4) food and nonfood expenditure shares.

¹⁷In this context, "nutritional risk" is the likelihood of having insufficient nutrients available from food used from the household food supply to maintain good health.

a. Expenditures for Food Used at Home

The principal measure of expenditures for food used at home that we analyze in this report is the *money value of purchased food used at home*, as defined in Section 2.b. of this chapter. This measure is based on the seven-day accounting of each individual purchased food item that was used from the home food supply (that is, the use of purchased food during the seven-day recall period).¹⁸ We computed the money value of each reported food item that was purchased as the quantity used multiplied by the unit price. We obtained the total money value of purchased food used at home per week by summing the money value over all of the purchased food items used. This figure was converted to a monthly figure by multiplying the per-week amount by 4.3 weeks.

Note that the monthly value of purchased food used at home as defined in the previous paragraph is only an *indirect* measure of actual expenditures in any given month. It differs from the true measure of expenditures for food used at home per month in that: (1) foods enter the measure as they are used, rather than as they are purchased by the household, and (2) the measure is based on a seven-day accounting period, rather than on a monthly accounting period. However, it is reasonable to assume that, on average, actual expenditures for food used at home and the current measure, which is based on the money value of purchased food used at home, correspond closely.

A second measure of food expenditures was also available in the data set. This measure, obtained during the household screening interview, was based on household reports of the total amounts of money spent by household members for food at various types of stores. This measure differs substantially from the first measure; the mean of expenditures as estimated from the screener

¹⁸It is useful to analyze essentially the same variable in two different parts of the analysis, because the information is interpreted differently in the different components of the analysis and because it is aggregated differently with other variables. For instance, when interpreting the variable as a measure of the money value of food used, it is reasonable to combine it with the money value of *nonpurchased* food used at home in order to obtain an indicator of the money value of overall home food use. However, when interpreting the variable as a measure of food expenditures, it is reasonable to combine it with a measure of food purchased outside of the home in order to obtain an overall indicator of expenditures for food.

questions is approximately 17 percent lower than the mean that is based on the detailed food-use data.

To assess the potential accuracy of the two measures of expenditures, we have compared our expenditures estimates with those obtained in two other national-level data sources for information on food expenditures: (1) the 1988-1989 Consumer Expenditure Survey, conducted for the U.S. Department of Labor, Bureau of Labor Statistics; and (2) the 1979-1980 low-income supplement to the Nationwide Food Consumption Survey, conducted for the USDA, Human Nutrition Information Service. As reported in Appendix H, the results of this investigation were ambiguous--one external source was closer to the main survey data than to the screener data, whereas the other external source was closer to the screener data.

We have also considered differences in the questions related to food expenditures that were asked in the main questionnaire and in the screener. A priori, it seems likely that we obtained more accurate information from the very detailed probing sequences in the main questionnaire about food used than from the summary questions in the screener about overall monthly expenditures at various types of stores.

On balance, we believe that the data from the main household survey are likely to be more accurate. Therefore, we base the analysis in the main text of the report on this information. However, in Appendix H, we present results that are based on the alternative measure.

b. Expenditures for Food Used Away from Home

The measure of monthly expenditures for food purchased and consumed away from home, *monthly expenditures for food used away from home*, is based on information from the main questionnaire. This measure includes the household's reported total expenditures (including any applicable sales taxes and tips) for meals, snacks, and beverages that were eaten at restaurants, bars,

cafeterias, cafes, and fast food places during the seven days preceding the interview.¹⁹ It also includes the amount paid in the calendar month preceding the interview for reduced-price or full-price school meals and for meals or snacks received at a day care home or center (if the payment for the food was separate from the payment for the care).

c. Total Expenditures for Food

We calculated *total monthly expenditures for food* by summing the money value of purchased food used at home and expenditures for food used away from home. It is important to point out several limitations associated with this measure of total food expenditures. First, the survey methodologies used to measure expenditures for food used at home and for food used away from home differ. The measure of expenditures for food used at home is based on a seven-day assisted recall of each purchased food item used from the home food supply, whereas the measure of expenditures for food used away from home is based on a recall of the aggregate household expenditures for food used away from home during the seven days preceding the household interview. Second, the measure of expenditures on food used away from home includes nonfood costs, including sales taxes and service charges, such as tips, whereas the measure of expenditures on food used at home is based on the price of purchased food without sales taxes and service charges. Therefore, because of the differences, aggregation of the two measures (expenditures for food used at home and expenditures for food used away from home) is somewhat problematic.

Despite these measurement problems, we have conducted a limited amount of analysis of total expenditures for food. Readers should keep in mind the limitations of these measures.

¹⁹Total expenditures for the seven days were multiplied by 4.3 weeks in order to convert the seven-day amount to a monthly amount.

d. Food and Nonfood Expenditure Shares

In the household survey, households were asked to recall expenditures made during the previous month for the following nine broad categories of nonfood items: (1) housing, (2) utilities, (3) medical, (4) transportation, (5) clothing, (6) education, (7) dependent care, (8) recreation, and (9) personal items. These data were converted into *expenditure shares*. An expenditure share is the proportion of all reported expenditures allocated to a specific budget category (for example, a household's expenditure for clothing divided by the total dollar amount of all of its reported expenditures). We computed expenditure shares for total food (and separately for its components, food used at home and food used away from home) and for the nine categories of nonfood items. When calculating mean budget shares for food and nonfood expenditure categories, we used averages of individual food stamp household ratios.

D. DESCRIPTION OF THE SAMPLES OF CHECK AND COUPON HOUSEHOLDS

We conducted the survey of food stamp recipients with 2,386 households (1,255 check households and 1,131 coupon households).²⁰ Not all of the interviews yielded data that could be used to analyze the impact of cash-out on food use. For a number of reasons related to data quality, some of the interviews had to be omitted from this part of the analysis.²¹

This reduction produced a final sample of 2,289 households (1,209 check households and 1,080 coupon households) that could be used to analyze the impact of cash-out on food use and nutrient availability. However, for analyses that did not depend on food-use data, such as respondents' attitudes toward check benefits, we used the larger sample, for a total of 2,386 households.

²⁰Equal numbers of check and coupon households were drawn into the original sample. We discuss possible reasons for the differential rates of attrition in Appendix K.

²¹For 78 households (35 check recipients and 43 coupon recipients), the food-use data collected in the interview were deemed of insufficient quality, because the interview was conducted more than 48 hours after the end of the seven-day reference period, or because the food-use data mistakenly were collected for more than seven days. Another 19 households were nonhousekeeping households (that is, households that consumed fewer than ten meals at home during the reference week).

This section presents descriptive statistics for the sample of 2,386 households. (The characteristics of the smaller sample used in the food-based analysis are virtually identical to those of this larger sample.)

1. Demographic Characteristics of Check and Coupon Households

This section examines the demographic characteristics of the check and coupon households in the survey sample, such as household size and composition. It also examines the demographic characteristics of the "sampled person" in each of those households.²² As discussed, check and coupon households and sampled persons were similar along all of the characteristics examined.

Check households contained an average of 2.98 persons per household, whereas coupon households contained an average of 2.91 persons (Table III.2). When we rescaled household size to account for differences in household composition and in the number of meals eaten at home, the sizes of the check and coupon households were still very similar.

About 25 percent of check households and 24 percent of coupon households contained an elderly person. Sixty percent of check households and 61 percent of coupon households contained children. In both samples, a majority of households with children were headed by a single parent. About 74 percent of sampled check recipients were female, and 21 percent were married. About 74 percent of sampled coupon recipients were female, and 19 percent were married. These differences are not statistically significant.

About 24 percent of sampled persons in check households and 25 percent in coupon households were employed at the time of the interview. Roughly 40 percent of sampled persons in check households were less than 35 years of age, as were 39 percent in coupon households. About 28 percent of sampled persons in check households and 27 percent in coupon households had completed

²²The "sampled person" is the person in whose name the food stamp case is maintained. Most the demographic information was collected in the survey only for the sampled person; only age of and relationship to the sampled person were collected for all household members.

TABLE III.2

DEMOGRAPHIC CHARACTERISTICS OF CHECK AND COUPON HOUSEHOLDS

	Percentage		Difference in Percentages		
	Check	Coupon	Absolute	Percentage	t-Statistic
Composition of the Food Consumption Unit					
Persons in Food Consumption Unit	2.98	2.91	0.07	2.58	0.97
Food Consumption Unit in Adult Male Equivalents	2.15	2.12	0.03	1.49	0.56
Food Consumption Unit in Equivalent Nutrition Units	1.87	1.83	0.04	2.35	0.87
Contains Elderly (percent)	25.34	23.78	1.56	6.54	0.88
Contains Children (percent)	59.52	61.36	-1.84	-3.00	0.92
Single parent (percent)	78.42	79.22	-0.80	-1.01	0.37
Two parents (percent)	21.58	20.78	0.80	3.86	0.37
Characteristics of the Sampled Person (Percentage of Households)					
Female	74.18	73.65	0.53	0.72	0.30
Married	21.12	18.92	2.20	11.60	1.34
Employed	23.51	25.38	-1.87	-7.37	1.06
Less than 35 Years Old	39.92	38.99	0.93	2.38	0.46
Education					
Did not complete elementary school	27.73	27.41	0.32	1.17	0.17
Completed elementary school	30.92	32.01	-1.09	-3.41	0.57
Completed high school	41.35	40.32	1.03	2.57	0.51
Race and Ethnicity					
Black (not Hispanic)	68.05	69.41	-1.36	-1.96	0.72
White (not Hispanic)	31.31	30.24	1.07	3.56	0.57
Other	0.64	0.35	0.29	80.24	0.99
Sample Size	1,255	1,131			

SOURCE: Evaluation of the Alabama Food Stamp Cash-Out Demonstration, household survey.

NOTE: Two-tailed statistical tests were performed on all check-coupon differences shown in this table; none was statistically significant.

no more than eight grades of school. Forty-one percent of check households had completed high school, compared with 40 percent of coupon households.

Approximately 68 percent of sampled persons in check households and 69 percent in coupon households were black. Non-Hispanic whites were the only other racial/ethnic group significantly represented in the sample.

2. Economic Characteristics of Check and Coupon Households

This section compares the economic situations of check households and coupon households. As with the demographic characteristics, the economic characteristics of the samples of check and coupon households were similar.

During the interview, we asked respondents whether the adults in the households had received income during the previous month from each of 17 different sources, including earnings from a job or self-employment, several types of retirement income, and benefits from a number of government transfer programs. When an income source was reported, the respondent was asked about the amount of income received from that source during the month. Respondents were also asked to report the amount of their food stamp benefits. To obtain the total cash income for the FCU, we summed the amounts of cash income from all sources for all of the individuals in the FCU.

To increase the accuracy of the data, we replaced the self-reported amounts for both Aid to Families with Dependent Children (AFDC) and food stamp benefits with the amounts obtained from the administrative records of the FSP for the interview month. For households containing more than one FCU or AFDC unit, we made the replacement only for the "primary" unit, that is, for the FCU that was sampled to participate in the study. Therefore, the total AFDC benefit for an FCU might be the sum of one "official" amount and one or more self-reported amounts. The same is true for the total food stamp benefit amount.

Table III.3 compares the economic circumstances of check and coupon households. The total monthly cash income for the FCU averaged \$446 for check recipients and \$441 for coupon recipients. Almost 29 percent of check households and more than 30 percent of coupon households received wage and salary earnings, with check recipients having somewhat higher average earnings. However, none of these differences is statistically significant.

Almost 26 percent of both groups of households received AFDC benefits. Check recipients received an average monthly AFDC benefit of \$128, and coupon recipients received an average of \$121, a difference that is statistically significant at the 90 percent confidence level. Thirty-nine percent of check households and 38 percent of coupon households received other forms of public assistance (Supplemental Security Income, General Assistance, and Housing Assistance).

The average amount of the food stamp benefit was virtually identical in the two samples--about \$169.

TABLE III.3
ECONOMIC CHARACTERISTICS OF CHECK AND COUPON HOUSEHOLDS

	Mean Value		Difference in Means		
	Check	Coupon	Absolute	Percentage	t-Statistic
Monthly Cash Income	\$445.58	\$441.35	4.23	0.96	0.31
Percent Receiving Earned Income	28.53	30.33	-1.80	-5.94	0.96
Amount of Earned Income (Recipients Only)	\$544.53	\$513.86	30.67	5.97	1.15
Percent Receiving AFDC	25.50	25.91	-0.41	-1.58	0.23
Amount of AFDC Benefits (Recipients Only)	\$128.26	\$121.27	6.99	5.76	1.79 *
Percent Receiving Other Public Assistance	38.80	38.02	0.78	2.07	0.39
Amount of Other Public Assistance Benefits (Recipients Only)	\$216.82	\$225.72	8.90	-3.94	0.78
Food Consumption Unit Monthly Food Stamp Benefits	\$169.27	\$168.80	0.47	0.28	0.09
Ratio of Monthly Food Stamp Benefit to Monthly Cash Income Plus the Food Stamp Benefit ^a (Percent)	27.53	27.66	-0.13	-0.49	NA
Percent Paying Rent	53.78	55.17	-1.39	-2.51	0.68
Amount of Rent Paid (Renters Only)	\$126.65	\$120.83	5.82	4.82	1.24
Sample Size	1,255	1,131			

SOURCE: Evaluation of the Alabama Food Stamp Cash-Out Demonstration, household survey.

NOTE: Monthly cash income figures exclude cash Food Stamp Program benefits.

Two-tailed statistical tests were performed on all check-coupon differences shown in this table.

^aCalculated as the sum of all food stamp benefits in the sample divided by the sum of all food stamp benefits plus income in the sample.

AFDC = Aid to Families with Dependent Children; NA = not applicable

*Statistically significant at the 90 percent confidence level, two-tailed test.

IV. THE EFFECTS OF CASH-OUT ON HOUSEHOLD FOOD USE, NUTRIENT AVAILABILITY, AND PERCEPTIONS OF FOOD ADEQUACY

A central issue in the evaluation of the Alabama Food Stamp Cash-Out Demonstration (and in the other cash-out studies) is whether converting the form of the benefit from food stamp coupons to checks reduces household food use and the nutrients provided by food used at home. In this chapter, we use data from the survey of check and coupon households to assess the impact of cash-out on household food use, nutrient availability, and perceptions of food adequacy in Alabama. The household survey obtained detailed data from the respondents on the types, quantities, and prices of foods used at home during the week preceding the interview; on the respondents' perceptions of the adequacy of their home food supplies; and on the respondents' uses of other program and nonprogram sources of food. To analyze the impact of cash-out on household food use, nutrient availability, and perceptions of food adequacy, we present sample mean values of outcome measures for check households and coupon households separately and conduct formal difference-of-means tests to compare outcomes.

The chapter is organized into three sections. Section A describes the impact of cash-out on the money value, kinds, and quantities of food used at home. Section B discusses the impact of cash-out on the availability of nutrients from food used at home. Section C describes the impact of cash-out on the respondents' perceptions of the adequacy of their home food supplies.

A. THE MONEY VALUE AND TYPES OF FOOD USED AT HOME

Households in the Food Stamp Program (FSP) can use check benefits to purchase any good or service. Therefore, converting the benefit form from coupons to checks might induce these households to purchase less food, thereby leading to reduced levels of nutrition among the households' members. Such an effect would undermine a major objective of the FSP. The Alabama household survey was designed to provide information on the impact of cash-out on food use,

especially on the money values of both purchased and nonpurchased food used at home.¹ This section uses information from the survey to investigate the effects of cash-out on the money value of food used at home and on the kinds and quantities of food used.²

1. The Money Value of Food Used at Home

We begin by discussing the impact of cash-out on the money values of purchased and nonpurchased food used at home during the seven days preceding the interview. In addition, we discuss the impact of cash-out on the sum of those values, that is, on the money value of all food used at home. We use three measures in our discussion. In Section III.A.1.a, to discuss the findings, we use the *money value of the food used at home per household*, which is simply the total money value of the food used from the household food supply. In Section III.A.1.b, we examine two measures that adjust the money value of food used at home for family size and composition: (1) the *money value of food used at home per adult male equivalent (AME)*, and (2) the *money value of food used at home per equivalent nutrition unit (ENU)*.³

To summarize the findings, the analysis of the money value of food used by check households and coupon households indicates that cash-out did not lead to a reduction in the money value of food used at home. This finding is consistent for all three measures of the money value of food used at home. The analysis also indicates that check and coupon households were essentially alike with

¹Nonpurchased food includes home-produced food (such as that obtained by gardening, hunting, or fishing), food obtained from a food bank or a government commodity distribution program, food obtained by redeeming a Special Supplemental Food Program for Women, Infants, and Children (WIC) voucher, and food received as a gift or as payment for work. In the final section of this chapter, we present findings from the household survey on the reliance of check recipients on food banks, surplus commodities, and gift/pay food.

²In this evaluation, we also assessed the impact of cash-out on nonfood consumption behavior. We present the results of that assessment in Section A of Chapter V.

³See Chapter III, Section C.2, for descriptions of the unscaled and scaled measures of the money value of food used at home.

respect to the money value of purchased food, of nonpurchased food, and of all food used.⁴ Our analysis reveals no differences between urban and rural households with respect to the effect of cash-out on the money value of food used at home.

a. Money Value of Food Used at Home per Household

The cash-out of food stamp benefits in Alabama did not lead to a reduction in the money value of food used at home per household. Table IV.1 shows that both check households and coupon households used about \$55 worth of purchased food at home per week, and a little less than \$5 worth of nonpurchased food at home per week. Therefore, it follows that, for both check households and coupon households, the money value of all food used at home (purchased food plus nonpurchased food) was about \$60 per week. The difference between the two groups is quite small (only 1 percent), and not statistically significant.

The effect of cash-out on the money value of food used at home did not differ for urban and rural households. Appendix Tables J.1.A and J.1.B, which have the same format as Table IV.1, present the mean values of the various measures of the money value of food used at home separately for urban and rural households. Those tables show that the money value of nonpurchased food (including home-produced food) used at home by rural households exceeded that used by urban households by about 60 percent. However, the tables also show that, for both groups, regardless of the measure of the money value of food used at home, the estimated effects of cash-out were small and not statistically significant.

⁴When assessing these findings, note that they are based on measures of food use derived from detailed survey information on the foods used by households during the seven days preceding the interview. The survey data set also contains a measure of food expenditures that is based on respondent estimates of the amounts of money spent at various types of food stores during the month before the interview. As reported in Chapter V and Appendix H, this measure does not show that cash-out results in any decrease in household food expenditures. We have focused most of the analysis on the expenditures measure derived from the detailed recall of food use; for reasons discussed in detail in Chapter V and Appendix H, we believe that this measure is the more accurate measure of household food expenditures.

TABLE IV.1
MONEY VALUE OF FOOD USED AT HOME
(In Dollars)

	Mean Value		Difference in Means		
	Check	Coupon	Absolute	Percentage	t-Statistic
Money Value of Food Used at Home					
Purchased food	55.46	54.85	0.61	1.13	0.43
Nonpurchased food	4.84	4.69	0.15	3.19	0.38
All food used at home	60.31	59.54	0.77	1.29	0.50
Money Value of Food Used at Home per ENU					
Purchased food	33.43	33.66	-0.23	-0.69	0.31
Nonpurchased food	2.82	2.75	0.07	2.55	0.29
All food used at home	36.25	36.41	-0.16	-0.44	0.21
Money Value of Food Used at Home per AME					
Purchased food	29.43	29.50	-0.07	-0.27	0.12
Nonpurchased food	2.63	2.46	0.17	6.63	0.74
All food used at home	32.05	31.97	0.08	0.27	0.12
Sample Size	1,209	1,080			

SOURCE: Evaluation of the Alabama Food Stamp Cash-Out Demonstration, household survey.

NOTE: One-tailed statistical tests for (1) lower money value of purchased food and all food used at home by check recipients and (2) greater money value of nonpurchased food used at home by check recipients were performed on the check-coupon differences shown in this table.

None of the differences shown in this table is statistically significant at the 90 percent confidence level or higher

Appendix Table G.1 presents median values of the variables shown in this table. Appendix Table I.1 presents standard errors of the estimates shown in this table.

ENU = equivalent nutrition unit; AME = adult male equivalent.

b. Scaled Measures of the Money Value of Food Used at Home

The unscaled measure of the money value of food used at home per household reflects the influence on the use of food at home of both the size of the household and its age-gender composition. It also reflects the influence of the proportion of meals that are consumed from the household food supply. We control for these factors in this section, in which we report findings that are based on AME- and ENU-scaled measures of the money value of food used at home. The former measure controls for household size and composition, whereas the latter controls for household size and composition, as well as for the proportion of meals eaten from the home food supply.

Table IV.1 shows that the money value of both purchased and nonpurchased food used at home per ENU was virtually the same for check and coupon households. With respect to all food used at home (purchased food plus nonpurchased food), check households used an average of \$36.25 per week per ENU, which was only 0.4 percent less than the corresponding amount for coupon households (\$36.41). None of the check-coupon differences in the money value of food used at home per ENU is statistically significant at conventional confidence levels.^{5,6}

⁵For the money value of food used per ENU and for selected measures of nutrient availability discussed later in this chapter, we used "trimmed" means of the variables to conduct alternative "robust" tests for check-coupon differences. To conduct these tests, we first excluded from our calculations the 1 percent of check and coupon cases having the highest values and the 1 percent having the lowest values of the variable in question. We subsequently increased the trimming to 5 percent from each tail of the distribution. The purpose of the trimming was to make our statistical inferences less sensitive to cases having extreme values of food use, as such values might have been misreported or miscoded. With the 1 percent trimming, the finding reported in this chapter, that the differences in means between check and coupon households were very small, persisted in the trimmed means. In addition, statistical tests, whether based on trimmed or untrimmed means, showed that none of the check-coupon differences is significant. The increase in trimming from 1 percent to 5 percent of cases in each tail had no effect.

⁶As with the simple-difference-in-means estimates, the regression-adjusted estimates of the effect of cash-out on the money value of purchased food used at home per ENU, of nonpurchased food used at home per ENU, and of all food used at home per ENU are very small in magnitude and are not statistically significant. The regression-adjusted estimates of the check-coupon differences in these measures of household food use range from \$0.07 to \$0.14, and the associated t-statistics range from 0.09 to 0.20. See Appendix Tables E.3 through E.5 for additional details on these estimates. See Chapter III, Section B.1.b, for an explanation of the analysis of regression-adjusted mean values.

The findings that are based on the AME-scaled measure of food use are essentially the same as those that are based on the ENU-scaled measure. We find only very small differences between check and coupon households in the average money values of purchased food, nonpurchased food, and all food used at home per AME per week. None of those differences is statistically significant.

Cash-out could conceivably lead food stamp households that are in the lower tail of the food-use distribution to reduce their use of food, while having little effect on the overall average use of food. Such an outcome would be of great concern to policymakers, as the affected households would be those at greatest nutritional risk. To examine this issue, we compared the cumulative distributions of the money value of food used at home per ENU for check households and coupon households. This comparison showed that cash-out had virtually no effect on the use of food at home per ENU by households that are in the lower end of the food-use distribution. As Appendix Figure G.1 shows, the cumulative distributions of the money value of food used at home per ENU are quite similar for check and coupon households that are in the first quartile of those distributions. The cumulative distributions are also very similar for households in the three higher quartiles of food use.⁷

c. Money Value of Purchased Food Used as a Percentage of the Food Stamp Benefit Amount

We calculated the money value of purchased food used at home as a percentage of the food stamp benefit. If the money value of purchased food used by a household does not exceed the value of its food stamp benefit, this measure is less than or equal to 100 percent. Under this condition, a coupon household might prefer to reduce its food consumption and to increase its nonfood consumption; however, it is prevented from doing so by the form of the food stamp benefit. Such a household is said to be "constrained" in its consumption behavior by the coupon form of its food stamp benefit. A constrained household is likely to respond to food stamp cash-out by diverting some

⁷Appendix Table G.1 also provides the median values for the money value of food used per ENU and for the other variables shown in Table IV.1.

portion of its food stamp benefit away from the purchase of food and toward the purchase of nonfood items.

The concept of "constraint" can be clarified by considering an unconstrained household. The consumption behavior of a coupon household that purchases food having a money value in excess of its food stamp benefit amount (because the household uses some of its cash income to purchase food) is said to be "unconstrained" by the form of the food stamp benefit. Even in the absence of cash-out, such a household could reduce its consumption of food and increase its consumption of nonfood items, if it wished, by cutting back on its cash purchases of food and using the money that it saved to increase its nonfood purchases. Given that option, we would not expect an unconstrained household to change its consumption behavior in response to cash-out.

We would expect constrained households to alter their consumption behavior in response to the increased flexibility afforded by check benefits, but would expect the consumption behavior of unconstrained households to remain unchanged. Therefore, for coupon households, the money value of purchased food used as a percentage of the food stamp benefit for coupon households is, in principle, an indicator of the size of the impact that cash-out might have on food consumption and nutrient availability.

We computed the percentage of coupon households for which the money value of purchased food used at home was (1) less than 100 percent of the food stamp benefit, (2) between 101 percent and 110 percent of the food stamp benefit, and (3) greater than 110 percent of the food stamp benefit. To allow for errors in the reporting of food use, we classified coupon households having a money value of purchased food used at home that was less than or equal to 110 percent of the food stamp benefit as possibly being constrained by the form of their benefit.

Table IV.2 shows that 67 percent of coupon households had a money value of purchased food used at home that was greater than 110 percent of their food stamp benefit; thus, 33 percent of the coupon households were possibly constrained by the form of the benefit. This percentage is more

TABLE IV.2

MONEY VALUE OF PURCHASED FOOD USED AT HOME AS A
PERCENTAGE OF THE HOUSEHOLD'S FOOD STAMP BENEFIT

Comparison of Weekly Food Stamp Benefit with Money Value of Purchased Food Used at Home	Percent of Coupon Recipients
Money Value of Purchased Food Used at Home is:	
≤100 percent of food stamp benefit ^a	25.83
101 percent to 110 percent of food stamp benefit ^a	6.94
>110 percent of food stamp benefit	67.22
Sample Size	1,080

SOURCE: Evaluation of the Alabama Food Stamp Cash-Out Demonstration, household survey.

^aThese households are potentially constrained by the issuance of food stamp benefits as coupons.

than twice the percentage of constrained coupon recipients nationwide, as estimated by Senauer and Young (1986). Because food stamp recipients in Alabama have relatively low cash incomes, the high proportion of potentially constrained coupon recipients in our sample was to be expected. Given that high proportion, the virtually complete absence of evidence from this evaluation of any effect of cash-out on food consumption is surprising.

2. Kinds of Food Used at Home

This section investigates whether, despite having little impact on the money value of food used at home, food stamp cash-out might have affected the use of particular *kinds* of food. We base our analysis on 32 food groups, 31 of which are defined in the Thrifty Food Plan (TFP) of the U.S. Department of Agriculture (USDA). The TFP is the least costly of the four family food plans of the USDA (U.S. Department of Agriculture, Human Nutrition Information Service, 1983). The monthly cost of purchasing the TFP foods is the basis for the food-stamp allotment standard. The one non-TFP food group that we consider is alcoholic beverages. Although food stamp regulations prohibit the use of food coupons to purchase alcoholic beverages, recipients might use cash to purchase them.

We begin this investigation by examining the effects of food stamp cash-out on the quantity, in pounds, of food used, by food group. We then examine the effects of cash-out on the money value of food used, by food group, and on each food group's share of the money value of all food used from the home food supply. We have converted all outcome measures to a "per-ENU" basis.

To summarize the findings, cash-out had virtually no effect on either the quantity or the money value of *all* food used at home per ENU; however, cash-out had varied effects on the use of *different kinds* of food. We find weak evidence of small reductions in the use of most categories of meat and alternatives and of soft drinks, coffee, tea, and alcohol. We find weak evidence of small increases in the use of most other kinds of foods. Cash-out had large effects on the use of very few kinds of food.

a. Quantity of Food Used, by Food Group

For all foods combined, both check and coupon recipients reported using about 44.5 pounds of food per ENU per week. Table IV.3 lists the 31 TFP food groups plus alcoholic beverages and shows that the food-quantity response to cash-out varied somewhat across the groups.

Check households reported using fewer pounds of most types of *meat and alternatives* than did coupon households. Although several of these check-coupon differences are large in absolute terms, none exceeds 8 percent when measured relative to the use reported by coupon recipients. However, focusing on relative differences reveals some check-coupon variations in the quantity of food used. Compared with coupon recipients, check recipients reported using substantially less *whole-grain/high-fiber flour, meal, rice, and pasta* (14 percent less), *coffee and tea* (15 percent less), and *alcohol* (38 percent less). Of the 14 food categories for which check recipients reported using fewer pounds of food than did coupon recipients, the only statistically significant difference is in the *coffee and tea* category. For most groups of foods other than meat and alternatives and beverages, check recipients reported using slightly more food than did coupon recipients. Of the 18 food groups for which reported use by check recipients exceeded that by coupon recipients, only the differences for *grain mixtures* (24 percent) and *nuts and peanut butter* (21 percent) are statistically significant.

b. Money Value of Food Used, by Food Group

In Table IV.4, we present the estimated effects of cash-out on the money value of food used at home, by food group. The basic pattern of these effects is similar to that obtained when we used the food-quantity outcome measure. The estimated reductions in money values were concentrated among *meat and alternatives* and in the various categories of beverages; however, none of those estimates is statistically significant. For most of the other categories of foods, we estimate that the money values increased as a consequence of cash-out, although those estimated increases are generally small and statistically insignificant. Relative to coupon recipients, check recipients reported significantly

TABLE IV.3

QUANTITY OF FOOD USED AT HOME, BY FOOD GROUP
(In Pounds per Week per ENU)

Food Group	Mean Value		Difference in Means		
	Check	Coupon	Absolute	Percentage	t-Statistic
Vegetables, Fruit					
Potatoes	1.41	1.42	-0.01	-0.80	0.14
High-nutrient vegetables	2.48	2.44	0.04	1.67	0.32
Other vegetables	2.46	2.43	0.03	1.37	0.33
Mixtures, mostly vegetables; condiments	0.39	0.39	0.00	0.45	0.07
Vitamin-C-rich fruit	1.80	1.67	0.13	7.72	1.12
Other fruit	3.96	3.86	0.10	2.56	0.31
Grain Products					
Whole-grain/high-fiber breakfast cereals	0.27	0.28	-0.01	-3.63	0.49
Other breakfast cereals	0.33	0.32	0.01	2.82	0.46
Whole-grain/high-fiber flour, meal, rice, pasta	0.25	0.29	-0.04	-13.59	1.30
Other flour, meal, rice, pasta	1.85	1.79	0.06	2.85	0.67
Whole-grain/high-fiber bread	0.14	0.13	0.01	4.50	0.33
Other bread	1.32	1.31	0.01	1.07	0.30
Bakery products, not bread	0.80	0.77	0.03	4.25	0.87
Grain mixtures	0.33	0.27	0.06	23.82	2.34 **
Milk, Cheese, Cream					
Milk, yogurt	6.55	6.16	0.39	6.26	1.61
Cheese	0.34	0.32	0.02	7.90	1.35
Cream, milk mixtures, mostly milk	0.63	0.59	0.04	7.06	0.84
Meat and Alternatives					
Lower-cost red meats, variety meats	2.42	2.53	-0.11	-4.43	1.06
Higher-cost red meats, variety meats	1.42	1.52	-0.10	-6.85	1.23
Poultry	2.45	2.46	-0.01	-0.50	0.12
Fish, shellfish	0.82	0.83	-0.01	-0.95	0.12
Bacon, sausage, luncheon meats	1.82	1.90	-0.08	-4.22	1.14
Eggs	0.90	0.93	-0.03	-4.23	1.34
Dry beans, peas, lentils	0.59	0.54	0.05	9.72	1.45
Mixtures, mostly meat, poultry, fish, egg, legume	0.44	0.47	-0.03	-5.08	0.55
Nuts, peanut butter	0.17	0.14	0.03	21.29	2.25 **
Other Foods					
Fats, oils	1.24	1.23	0.01	1.15	0.30
Sugar, sweets	1.58	1.49	0.09	6.21	1.44
Seasonings	0.00	0.00	0.00	-43.61	0.47
Soft drinks, punches, ades	5.05	5.41	-0.36	-6.69	1.42
Coffee, tea	0.14	0.16	-0.02	-15.23	2.03 **
Alcohol	0.15	0.25	-0.10	-37.72	1.14
Total, All Food	44.51	44.31	0.20	0.45	0.21
Sample Size	1,209	1,080			

SOURCE: Evaluation of the Alabama Food Stamp Cash-Out Demonstration, household survey.

NOTE: Two-tailed statistical tests were performed on all check-coupon differences shown in this table.

ENU = equivalent nutrition unit.

**Statistically significant at the 95 percent confidence level, two-tailed test.

TABLE IV.4

MONEY VALUE OF FOOD USED AT HOME, BY FOOD GROUP
(In Dollars per Week per ENU)

Food Group	Mean Value		Difference in Means		
	Check	Coupon	Absolute	Percentage	t-Statistic
Vegetables, Fruit					
Potatoes	0.55	0.57	-0.02	-2.27	0.41
High-nutrient vegetables	1.72	1.70	0.02	1.19	0.23
Other vegetables	1.69	1.69	0.00	0.05	0.01
Mixtures, mostly vegetables; condiments	0.53	0.51	0.02	3.79	0.60
Vitamin-C-rich fruit	0.94	0.88	0.06	6.15	0.76
Other fruit	1.60	1.56	0.04	2.99	0.50
Grain Products					
Whole-grain/high-fiber breakfast cereals	0.54	0.56	-0.02	-3.05	0.42
Other breakfast cereals	0.75	0.72	0.03	3.59	0.60
Whole-grain/high-fiber flour, meal, rice, pasta	0.16	0.17	-0.01	-3.25	0.15
Other flour, meal, rice, pasta	0.89	0.89	0.00	0.51	0.13
Whole-grain/high-fiber bread	0.13	0.13	0.00	2.18	0.17
Other bread	1.01	1.00	0.01	1.33	0.37
Bakery products, not bread	1.27	1.22	0.05	3.92	0.73
Grain mixtures	0.37	0.29	0.08	29.99	2.18 **
Milk, Cheese, Cream					
Milk, yogurt	2.67	2.37	0.30	12.65	2.37 **
Cheese	0.86	0.81	0.05	6.76	1.17
Cream, milk mixtures, mostly milk	0.62	0.63	-0.01	-0.67	0.07
Meat and Alternatives					
Lower-cost red meats, variety meats	3.38	3.56	-0.18	-4.99	1.19
Higher-cost red meats, variety meats	2.84	3.07	-0.23	-7.64	1.42
Poultry	2.30	2.34	-0.04	-1.76	0.43
Fish, shellfish	1.40	1.52	-0.12	-8.01	0.97
Bacon, sausage, luncheon meats	3.15	3.29	-0.14	-4.31	1.18
Eggs	0.59	0.62	-0.03	-4.08	1.23
Dry beans, peas, lentils	0.36	0.32	0.04	10.17	1.50
Mixtures, mostly meat, poultry, fish, egg, legume	1.12	1.19	-0.07	-6.03	0.54
Nuts, peanut butter	0.33	0.27	0.06	24.02	2.49 **
Other Foods					
Fats, oils	1.01	0.98	0.03	2.31	0.55
Sugar, sweets	1.07	0.99	0.08	8.87	1.83 *
Seasonings	0.00	0.00	0.00	-29.87	0.35
Soft drinks, punches, ades	1.70	1.78	-0.08	-4.56	1.02
Coffee, tea	0.56	0.59	-0.03	-5.72	0.85
Alcohol	0.12	0.19	-0.07	-37.28	1.31
Total, All Food	36.25	36.41	-0.16	-0.44	0.21
Sample Size	1,209	1,080			

SOURCE: Evaluation of the Alabama Food Stamp Cash-Out Demonstration, household survey.

NOTE: Two-tailed statistical tests were performed on all check-coupon differences shown in this table, with the exception of the difference for "Total, All Food," for which a one-tailed test was performed.

ENU = equivalent nutrition unit.

*Statistically significant at the 90 percent confidence level, two-tailed test.

**Statistically significant at the 95 percent confidence level, two-tailed test.

greater money values of food used from four food groups: (1) grain mixtures (30 percent more), (2) *milk and yogurt* (13 percent more), (3) *nuts and peanut butter* (24 percent more), and (4) *sugar and sweets* (9 percent more).

c. Share of Money Value of Food Used, by Food Group

The two measures that we have just examined incorporate the effects of cash-out on both the overall level of food use and the distribution of food use across food groups. In this section, we factor out the overall effect of cash-out, small though it might be, and consider only its distributional effects. Our outcome measure is the percentage of the total money value of food used at home that is accounted for by each of the 32 food groups.

The findings from this analysis further confirm those from our analyses of the quantity and money value of food used, by food group. We again obtain weak evidence that cash-out induced shifts away from *meat and alternatives* and from beverages, toward most other groups of foods (Table IV.5). We find statistically significant evidence of a shift away from *whole-grain/high-fiber flour, meal, rice, and pasta* and toward *milk and yogurt, nuts and peanut butter, and sugar and sweets*.

B. NUTRIENT AVAILABILITY

In this section, we investigate whether cash-out led to a reduction in the availability of nutrients from the food used at home by food stamp households. We consider two types of nutrients: (1) *macronutrients* (protein, fat, and carbohydrate), which are the principal sources of food energy,⁸ and (2) *micronutrients* (vitamins, minerals, and trace elements), which are essential for the proper growth and maintenance of the human body.

⁸Alcohol (ethanol) is the only other significant source of food energy. The survey data for this study show that alcohol contributes only 0.1 percent of the energy obtained by food stamp households in Alabama from food used at home. Consequently, we have omitted alcohol from the analysis of food energy and its sources that is presented in this section. The use of alcoholic beverages by food stamp households in Alabama is included in Tables IV.3 through IV.5 of the previous section.

TABLE IV.5

PERCENTAGE SHARE OF MONEY VALUE OF FOOD USED AT HOME,
BY FOOD GROUP

Food Group	Mean Value		Difference in Means		
	Check	Coupon	Absolute	Percentage	t-Statistic
Vegetables, Fruit					
Potatoes	1.54	1.61	-0.07	-4.07	0.79
High-nutrient vegetables	4.54	4.58	-0.04	-0.94	0.23
Other vegetables	4.61	4.67	-0.06	-1.15	0.33
Mixtures, mostly vegetables; condiments	1.47	1.46	0.01	1.02	0.18
Vitamin-C-rich fruit	2.51	2.29	0.22	9.71	1.42
Other fruit	4.14	4.03	0.11	2.84	0.59
Grain Products					
Whole-grain/high-fiber breakfast cereals	1.52	1.64	-0.12	-6.99	0.99
Other breakfast cereals	2.20	2.11	0.09	4.35	0.70
Whole-grain/high-fiber flour, meal, rice, pasta	0.37	0.45	-0.08	-18.37	1.84 *
Other flour, meal, rice, pasta	2.51	2.59	-0.08	-3.07	0.82
Whole-grain/high-fiber bread	0.41	0.40	0.01	0.51	0.03
Other bread	3.04	2.94	0.10	3.51	0.99
Bakery products, not bread	3.46	3.28	0.18	5.66	1.20
Grain mixtures	1.00	0.86	0.14	15.92	1.60
Milk, Cheese, Cream					
Milk, yogurt	7.34	6.71	0.63	9.47	2.20 **
Cheese	2.35	2.22	0.13	5.81	1.08
Cream, milk mixtures, mostly milk	1.63	1.69	-0.06	-3.94	0.53
Meat and Alternatives					
Lower-cost red meats, variety meats	9.42	9.83	-0.41	-4.15	1.23
Higher-cost red meats, variety meats	7.56	8.02	-0.46	-5.83	1.33
Poultry	6.67	6.69	-0.02	-0.24	0.06
Fish, shellfish	3.65	3.68	-0.03	-0.89	0.14
Bacon, sausage, luncheon meats	8.89	9.13	-0.24	-2.66	0.93
Eggs	1.82	1.87	-0.05	-2.48	0.68
Dry beans, peas, lentils	1.04	0.96	0.08	8.1	1.20
Mixtures, mostly meat, poultry, fish, egg, legume	2.84	2.91	-0.07	-2.14	0.24
Nuts, peanut butter	0.91	0.74	0.17	22.86	2.49 **
Other Foods					
Fats, oils	2.78	2.76	0.02	0.85	0.23
Sugar, sweets	3.01	2.74	0.27	9.66	2.24 **
Seasonings	0.01	0.00	0.01	14.13	0.15
Soft drinks, punches, ades	4.85	5.00	-0.15	-3.19	0.80
Coffee, tea	1.58	1.69	-0.11	-6.66	1.01
Alcohol	0.32	0.44	-0.12	-26.13	0.93
Total, All Food	100.0	100.0			
Sample Size	1,209	1,080			

SOURCE: Evaluation of the Alabama Food Stamp Cash-Out Demonstration, household survey.

NOTE: Two-tailed statistical tests were performed on all check-coupon differences shown in this table.

ENU = equivalent nutrition unit.

*Statistically significant at the 90 percent confidence level, two-tailed test.

**Statistically significant at the 95 percent confidence level, two-tailed test.

We define *nutrient availability* as the nutrients provided by all food used at home for a given period; for this study, the given period is the seven-day reference period for the food-use component of the household survey.⁹ We computed nutrient availability by multiplying the nutrient content per pound of each type of food by the number of pounds of each type of food used and by summing the products.¹⁰ We report all measures of nutrient availability on a per-ENU basis.¹¹ When transformed in this way, and subject to the qualifications presented in Chapter III, Section C.3.a, the measure of nutrient availability can be meaningfully compared with the recommended dietary allowance (RDA) for an adult male.¹²

The statistics on the availability of nutrients relative to the RDAs that we present in this section should be used to make only *relative* comparisons between check and coupon recipients in the nutritional adequacy of food used from the home food supply. A finding that the mean availability of a given nutrient exceeds the RDA by a wider margin for one group than for the other should be interpreted as indicating that the group for which the margin is wider is at less nutritional risk than

⁹*Nutrient intake* is defined on the basis of the food *actually eaten* by individual members of a household, whereas *nutrient availability* is defined on the basis of the food *used* by a household. As explained in Chapter III, Section C.3.a, some food used by a household is lost, wasted, or fed to pets. Thus, a measure of nutrient availability tends to overstate the nutrients actually ingested by household members.

¹⁰We used a USDA nutrient data base to convert the survey data on the quantity of food used to data on nutrient availability. The data base provides information on the nutrient content per pound of roughly 4,000 foods and food combinations in the form in which they enter the household, with adjustments for cooking losses and inedible components of foods. Most of the nutrient values are supported by laboratory analyses, although some are imputed on the basis of data for similar foods. Hepburn (1982) describes the USDA nutrient data base.

¹¹For each nutrient considered in this study, we have computed a nutrient-specific measure of household size in ENUs. As explained in Chapter III, Section C.1, this measure incorporates adjustments for (1) the need of each household member for the nutrient in question, as indicated by his or her RDA for that nutrient, (2) the proportion of each member's meals that is eaten at home, and (3) meals served to guests.

¹²Chief among the qualifications is the fact that the RDAs have been established as a basis for evaluating the adequacy of nutrient intake. Nutrient availability tends to exceed nutrient intake. Thus, a finding that nutrient availability exceeds the RDA does not necessarily mean that nutrient intake also exceeds the RDA.

the other group.¹³ Although availability below the RDA for a nutrient does not necessarily imply dietary inadequacy, the risk of dietary inadequacy increases as the mean availability of a nutrient falls further below the RDA. A finding that the proportion of households for which the availability of a nutrient exceeds the RDA is greater in one group than in the other should also be interpreted in a relativistic fashion. *The reader is cautioned to avoid drawing conclusions from these findings about the absolute number or proportion of check and coupon households that are at nutritional risk.*¹⁴

We begin the analysis by examining the effects of food stamp cash-out on the availability of food energy and of its sources (protein, carbohydrate, and fat). We then compare the availability of nutrients per kilocalorie of food energy in check and coupon households. In Section 3, we describe the impact of cash-out on seven micronutrients relative to their RDAs and, in Section 4, examine the availability of food energy and nutrients per dollar value of food used.

To summarize the findings, the combined data on household food use by urban and rural food stamp recipients show that cash-out did not result in lower availability of food energy or of the seven micronutrients examined. However, among urban households, cash-out was accompanied by a small shift away from fat and to carbohydrate as a source of food energy.

1. Food Energy and Its Sources

The food used by households in the United States, including those below the poverty threshold, generally provides amounts of food energy that, on average, are more than adequate to meet the needs of the household members. Indeed, obesity resulting from the chronic intake of food energy in excess of requirements is a major public health concern. The availability of food energy to food

¹³As defined in Chapter III, nutritional risk is the likelihood of having insufficient nutrients available to maintain good health.

¹⁴The principal reasons for this caution are, as explained in Chapter III, Section C.3.a, that (1) the RDAs are established to exceed the average person's requirements for nutrient intake by a substantial margin, and (2) the RDAs are recommendations for nutrient *intake*, whereas the Alabama survey data provide information on nutrient *availability*.

stamp households in Alabama reflects this pattern. Table IV.6 shows that the mean availability of food energy per ENU was 162 percent of the RDA for both check households and coupon households.¹⁵ The table also shows that the food used by 80 percent of both check households and coupon households provided food energy that equalled or exceeded the RDA.¹⁶ Thus, the evidence from the data in the household survey supports the conclusion that cash-out did not lead to a reduction in the availability of food energy to food stamp recipients.

Protein is the only macronutrient for which an RDA has been established. Table IV.6 shows that the mean availability of protein was quite high relative to its RDA and was virtually identical for check and coupon households.¹⁷ The table also shows that the household survey presents no evidence that cash-out resulted in any reduction in the very high percentage of households that used food providing at least 100 percent of the RDA for protein.

Throughout this century, the proportion of food energy obtained from protein by Americans has remained relatively stable, whereas the proportion from fat has increased and the proportion from carbohydrate has decreased. The Committee on Diet and Health of the Food and Nutrition Board recommends that no more than 30 percent of food energy in the U.S. diet be provided by fat (National Research Council, 1989a). In addition, the Subcommittee on the Tenth Edition of the RDAs of the Food and Nutrition Board recommends that more than one-half of food energy be provided by carbohydrate (National Research Council, 1989b). However, from 1979 to 1980, protein contributed approximately 17 percent of the food energy in the diets of low-income Americans, fat

¹⁵The regression-adjusted estimate of the effect of cash-out on the availability of food energy, as with the simple-difference-in-means estimate that is shown in Table IV.6, is very small and statistically insignificant. See Appendix Table E.1, for the regression-adjusted estimate.

¹⁶Appendix Figure G.2 shows that cash-out had very little effect on the lower tail of the cumulative distribution of food energy availability per ENU. In particular, the figure shows that cash-out had no effect on the proportion of households for which the availability of food energy is less than the RDA.

¹⁷The regression-adjusted estimate of the effect of cash-out on the availability of protein, as with the simple-difference-in-means estimate that is shown in Table IV.6, is very small and statistically insignificant. See Appendix Table E.1, for the regression-adjusted estimate.

TABLE IV.6
AVAILABILITY OF FOOD ENERGY AND PROTEIN

Nutrient	Mean Value		Difference in Means		
	Check	Coupon	Absolute	Percentage	t-Statistic
Average Availability of Food Energy (percent of RDA)	162.19	161.46	0.73	0.45	0.22
Percent of Households Meeting or Exceeding RDA for Food Energy	79.65	79.81	-0.16	-0.20	0.10
Average Availability of Protein (percent of RDA)	258.18	258.99	-0.81	-0.31	0.15
Percent of Households Meeting or Exceeding RDA for Protein	95.12	96.02	-0.90	-0.94	1.05
Percent of Food Energy from:					
Protein	14.18	14.20	-0.02	-0.15	0.15
Fat	42.42	42.96	-0.54	-1.27	1.53
Carbohydrate	43.40	42.84	0.56	1.33	1.45
Sample Size	1,209	1,080			

SOURCE: Evaluation of the Alabama Food Stamp Cash-Out Demonstration, household survey.

NOTE: Nutrient availability from food used at home is given per equivalent nutrition unit, which is defined as the number of equivalent adult males eating all of their weekly meals from the household food supply.

One-tailed statistical tests for lower availability of nutrients among check recipients were performed on the check-coupon differences shown in the first four rows of this table. Two-tailed tests were performed on the check-coupon differences in the percentages of food energy from protein, fat, and carbohydrate.

None of the differences shown in this table is statistically significant at the 90 percent confidence level or higher.

Appendix Table G.2 presents the median values of the variables shown in this table. Appendix Table I.2 presents standard errors of the estimates shown in this table.

RDA = recommended dietary allowance.

contributed 39 percent, and carbohydrate contributed 44 percent (U.S. Department of Agriculture, Human Nutrition Information Service, September 1982).

Food stamp households in Alabama receive an average of 14 percent of total food energy from protein, 43 percent from fat, and 43 percent from carbohydrate. Table IV.6 shows that, relative to coupon households, check households received slightly less total food energy from fat, and slightly more from carbohydrate; however, these small differences are not statistically significant.

Disaggregated Results for Urban and Rural Households. We conducted disaggregated analyses of the effects of cash-out on the availability of food energy and of its component sources to urban and rural households in Alabama. We present the findings from those analyses in Appendix Tables J.2.A and J.2.B. The tables show that cash-out did not result in lower availability of food energy or protein to either urban or rural households. In addition, cash-out had no effect on the percentages of total food energy obtained by rural households from fat and from carbohydrate. However, Appendix Table J.2.A shows that, for urban households, cash-out was accompanied by a statistically significant shift of 1.1 percentage point from fat to carbohydrate as a source of food energy. Thus, cash-out moved urban households, but not rural households, by a small amount in the direction of compliance with guidelines for the percentage of total food energy that should be obtained from fat and carbohydrate.

2. Nutrient Availability

The fact that cash-out did not lead to reductions in either the money value of food used at home or the availability of food energy from food used at home suggests that cash-out is unlikely to have led to reductions in the availability of micronutrients. However, in principle, cash-out could have affected food-use patterns in such a way as to reduce the availability of micronutrients while leaving unchanged the availability of food energy and the money value of food used at home. As described in this section, the findings from our analysis of micronutrient availability indicate that this effect did not occur.

In Tables IV.7 and IV.8, we present the survey findings on the availability of seven micronutrients that are considered potentially problematic from a public health perspective.^{18,19} Table IV.7 shows that the mean availabilities of the seven micronutrients, expressed as percentages of the RDAs, are not significantly lower for check households than for coupon households.²⁰ The check-coupon differences that do exist are small, and their signs are inconsistent.²¹ Furthermore, when urban and rural households are considered separately, as in Appendix Tables J.3.A and J.3.B, the check-coupon differences in the mean availabilities of the seven micronutrients are also small and statistically insignificant.

When we use an alternative criterion to evaluate nutrient adequacy (the percentage of households for which the availability of a nutrient per ENU equals or exceeds the RDA for an adult male), we again find that cash-out did not result in reductions in the availability of micronutrients to the caseload as a whole (Table IV.8) or to the urban or rural components of the caseload (Appendix Tables J.4.A and J.4.B).^{22,23}

¹⁸The seven micronutrients are those for which RDAs exist and that have been classified by the Expert Panel on Nutrition Monitoring as either a current or potential public health issue (Life Sciences Research Office, 1989).

¹⁹The results for coupon households that are shown in Tables IV.7 and IV.8 are broadly consistent with existing estimates, based on the USDA's 1979-1980 Survey of Food Consumption in Low-Income Households, of the availability of selected nutrients per ENU (U.S. Department of Agriculture, Human Nutrition Information Service, July 1982, pages 26 and 27).

²⁰The entries in the first two columns of Table IV.7 show average nutrient availability per equivalent adult male nutrition unit, expressed as a percentage of the RDA for an adult male. For example, the entry in the "check" column for vitamin A indicates that check households used foods that provided an average of 227.32 percent of the RDA for vitamin A.

²¹Regression-adjusted estimates of the check-coupon differences in the mean availabilities of the seven selected micronutrients, expressed as a percentage of the RDAs, are presented in Appendix Table E.1. Those estimates have the same signs as the simple-difference-in-means estimates that are shown in Table IV.7. They are also statistically insignificant and of the same magnitude as the simple-difference-in-means estimates.

²²The entries in the first two columns of Table IV.8 show the percentage of households for which the availability of a nutrient per equivalent adult male nutrition unit equals or exceeds the RDA for an adult male. For example, the entry in the "check" column for vitamin A indicates that 75.52 percent of check households had sufficient availability of vitamin A to equal or exceed the RDA.

(continued...)

In summary, the two criteria that we have used to evaluate nutrient availability (availability as a percentage of the RDA, and the percentage of households for which availability equalled or exceeded the RDA) indicate that food stamp cash-out in Alabama did not result in reductions in the availability of micronutrients to either the caseload as a whole or to the urban or rural components of the caseload.

3. Nutrients per Kilocalorie of Food Energy

The finding that cash-out had little effect on the availability of food energy and seven micronutrients implies that it also had little effect on the availability of nutrients per kilocalorie of food energy (that is, the *nutrient density* of food used).²⁴ We directly investigated whether cash-out affected the nutrient density of food used by food stamp recipients, and we present our findings from that investigation in this section.

For the seven micronutrients that are considered potentially problematic from a public health perspective, Table IV.9 shows the availability of nutrients per 1,000 kilocalories of food energy for check and coupon households. For all of those micronutrients with the exception of calcium, the

²²(...continued)

Whereas Table IV.7 focuses on *average* nutrient availability, Table IV.8 focuses on the *distribution* of nutrient availability relative to the RDA. These perspectives often provide different insights into nutrient adequacy. For example, Table IV.7 shows that, on average, check households had far more vitamin A available than was needed to maintain good health. Nevertheless, Table IV.8 shows that the lowest quartile of check households in the distribution of vitamin A availability were below the RDA.

²³We present cumulative distributions of the availability of calcium and iron in Appendix Figures G.3 and G.4, respectively. A comparison of the calcium distributions for check and coupon households shows that cash-out resulted in a modest increase in the availability of calcium among households in the highest three quartiles of calcium availability. As noted, this increase was not accompanied by a statistically significant increase in the percentage of households for which the availability of calcium equalled or exceeded the RDA. The cumulative distribution of iron availability is virtually identical for check and coupon households.

²⁴Foods that provide few nutrients per kilocalorie of food energy (that is, foods with low nutrient densities) are sometimes said to provide "empty calories."

TABLE IV.7
NUTRIENT AVAILABILITY PER ENU:
PERCENTAGE OF RDA

Nutrient	Mean Value		Difference in Means		
	Check	Coupon	Absolute	Percentage	t-Statistic
Vitamin A	227.32	229.71	-2.39	-1.04	0.26
Vitamin C	250.63	255.40	-4.77	-1.87	0.60
Vitamin B ₆	157.59	157.30	0.29	0.19	0.09
Folate	223.94	221.69	2.25	1.02	0.39
Calcium	121.34	117.61	3.73	3.18	1.23
Iron	183.99	183.87	0.12	0.06	0.02
Zinc	127.28	128.87	-1.59	-1.23	0.56
Sample Size	1,209	1,080			

SOURCE: Evaluation of the Alabama Food Stamp Cash-Out Demonstration, household survey.

NOTE: Nutrient availability from food used at home is given per equivalent nutrition unit (ENU), which is defined as the number of equivalent adult males eating all of their weekly meals from the household food supply.

One-tailed statistical tests for lower availability of nutrients among check recipients were performed on the check-coupon differences shown in this table.

None of the differences shown in this table is statistically significant at the 90 percent confidence level or higher.

Appendix Table G.3 presents median values of the variables shown in this table. Appendix Table I.3 presents standard errors of the estimates shown in this table.

RDA = recommended dietary allowance.

TABLE IV.8

NUTRIENT AVAILABILITY PER ENU:
PERCENTAGE OF HOUSEHOLDS FOR WHICH AVAILABILITY
EQUALS OR EXCEEDS THE RDA

	Percentage		Difference in Percentages		
	Check	Coupon	Absolute	Percentage	t-Statistic
Vitamin A	75.52	74.17	1.35	1.82	0.74
Vitamin C	84.37	84.07	0.30	0.35	0.19
Vitamin B ₆	75.10	75.83	-0.73	-0.96	0.41
Folate	85.36	85.37	-0.01	-0.01	0.01
Calcium	53.60	50.56	3.04	6.02	1.45
Iron	82.22	80.28	1.94	2.42	1.18
Zinc	60.71	61.20	-0.49	-0.80	0.24
Sample Size	1,209	1,080			

SOURCE: Evaluation of the Alabama Food Stamp Cash-Out Demonstration, household survey.

NOTE: Nutrient availability from food used at home is given per equivalent nutrition unit (ENU), which is defined as the number of equivalent adult males eating all of their weekly meals from the household food supply.

One-tailed statistical tests for lower availability of nutrients among check recipients were performed on the check-coupon differences shown in this table.

None of the differences shown in this table is statistically significant at the 90 percent confidence level or higher.

Appendix Table I.4 presents standard errors of the estimates shown in this table.

RDA = recommended dietary allowance.

TABLE IV.9
NUTRIENT AVAILABILITY PER 1,000 KILOCALORIES
OF FOOD USED AT HOME
(Nutrient Density)

Nutrient	Mean Value		Difference in Means		
	Check	Coupon	Absolute	Percentage	t-Statistic
Vitamin A (μgRE)	544.52	536.63	7.89	1.47	0.41
Vitamin C (mg)	43.15	43.53	-0.38	-0.86	0.30
Vitamin B ₆ (mg)	0.75	0.75	0.00	0.18	0.12
Folate (μg)	106.97	106.05	0.92	0.87	0.41
Calcium (mg)	314.60	306.34	8.26	2.70	1.66 *
Iron (mg)	6.49	6.47	0.02	0.38	0.22
Zinc (mg)	4.69	4.75	-0.06	-1.24	1.06
Sample Size	1,209	1,080			

SOURCE: Evaluation of the Alabama Food Stamp Cash-Out Demonstration, household survey.

NOTE: Two-tailed statistical tests were performed on all check-coupon differences shown in this table.

*Statistically significant at the 90 percent confident level, two-tailed test.

check-coupon differences in mean nutrient densities are less than 1.5 percent and are not statistically significant. Only for calcium is the mean density significantly greater (by 2.7 percent) for check recipients than for coupon recipients. Thus, for all of the seven micronutrients except calcium, we conclude that food stamp cash-out in Alabama did not affect nutrient densities.

4. Nutrient Availability per Dollar Value of Food Used

In principle, under cash-out, some households might have an incentive to economize on food purchases in order to have money to purchase nonfood items. One strategy to reduce expenditures for food while minimizing the impact of such a reduction on nutritional well-being would be to shift to less expensive food groups, and from highly processed food and food with national brand names to food that is not highly processed and to store brands or generic brands. Although such food is typically less expensive than processed, brand-named food, its nutrient content is not necessarily lower. Evidence in the household-survey data indicating that check recipients had, in fact, adopted such a strategy would be a higher ratio of nutrients per dollar value of food used for check recipients than for coupon recipients.

Table IV.10 shows that, for protein and for six of the seven micronutrients, the differences between check and coupon households in the sample mean availabilities of nutrients per dollar value of food used are 1 percent or less and are mixed in sign. Only for calcium is the availability per dollar of food used significantly greater for check recipients than for coupon recipients. That difference is about 2 percent. Therefore, our results provide little evidence to support the hypothesis that check recipients used foods that were lower in price but as rich in nutrients as those used by coupon households.

TABLE IV.10
NUTRIENT AVAILABILITY PER DOLLAR VALUE
OF FOOD USED AT HOME

Nutrient	Mean Value		Difference in Means		
	Check	Coupon	Absolute	Percentage	t-Statistic
Protein per Dollar (gm/dollar)	31.59	31.42	0.17	0.52	0.49
Vitamin A per Dollar (μ gRE/dollar)	491.73	487.70	4.03	0.83	0.23
Vitamin C per Dollar (mg/dollar)	38.38	38.58	-0.20	-0.52	0.20
Vitamin B ₆ per Dollar (mg/dollar)	0.68	0.68	0.00	-0.02	0.01
Folate per Dollar (μ g/dollar)	97.31	96.25	1.06	1.10	0.55
Calcium per Dollar (mg/dollar)	289.83	282.90	6.93	2.45	1.36 [†]
Iron per Dollar (mg/dollar)	5.96	5.93	0.03	0.61	0.34
Zinc per Dollar (mg/dollar)	4.28	4.31	-0.03	-0.76	0.64
Sample Size	1,209	1,080			

SOURCE: Evaluation of the Alabama Food Stamp Cash-Out Demonstration, household survey.

NOTE: One-tailed statistical tests for greater nutrient availability per dollar value of food used at home by check recipients were performed on the check-coupon differences shown in this table.

[†]Statistically significant at the 90 percent confidence level, one-tailed test.

C. PERCEPTIONS OF FOOD ADEQUACY

Several questions in the survey were designed to provide information about the adequacy of the household's food supply. The survey asked questions about (1) the perceived adequacy of household food supplies (and, for households whose benefit form was converted from coupons to checks, changes in the quantity and quality of purchased food), (2) whether households run out of food or skip meals because the quantity of food or the resources to buy food are insufficient (and, if they do so, how often), and (3) the actions that households might take during the month to obtain food because the quantity is insufficient.

In this section, we present the survey respondents' descriptions of the adequacy of their home food supplies. Section IV.C.1 discusses the findings on the recipients' self-assessments of household food adequacy. In addition, for recipients whose benefit form was converted from coupons to checks, the section also discusses the findings from the self-assessments on perceived changes in the quantity and quality of food. Section IV.C.2 compares check and coupon households' experiences of running out of food and describes actions to obtain food when quantities of food were insufficient. Section IV.C.3. discusses the participation of recipients in other food-assistance programs and their use of nonpurchased food from nonprogram sources.

To summarize the findings, data from the household survey strongly indicate that check recipients were no more likely than coupon recipients to perceive their household food supplies to be inadequate. The data also indicate that check households were no more likely than coupon households to run out of food, to skip meals, or to try to obtain additional food. A large majority of check recipients whose benefit form had been converted from coupons believed that they were buying about the same amount of food with checks as they had with coupons, and that the quality of the food was the same. During the month preceding the survey, roughly equal percentages of check households with children and coupon households with children reported participating in the National School Lunch Program (NSLP) and the School Breakfast Program (SBP); roughly equal

percentages of check and coupon households containing a pregnant or lactating woman or a child less than 5 years old reported participating in WIC. However, check households were more likely than coupon households to have received USDA commodities.

1. Perceived Adequacy of the Household Food Supply

We asked all of the participants in the household survey to evaluate the adequacy of their household food supplies.²⁵ Large majorities of both check households and coupon households reported that they perceived themselves to have had adequate supplies of food during the month preceding the survey. Table IV.11 shows that 35 percent of check recipients reported getting enough of the desired kinds of food, and that 48 percent reported getting enough food, although not always of the desired types. The table also shows that 34 percent and 47 percent of coupon recipients had these respective perceptions of the adequacy of their household food supplies. Thus, roughly 84 percent of check households and 81 percent of coupon households reported getting enough food during the month preceding the survey.

Minorities of both check households and coupon households reported that they sometimes or often did not have adequate supplies of food during the month preceding the survey. Table IV.11 shows that 16 percent of check households and 19 percent of coupon households reported that they sometimes or often had inadequate supplies of food during the preceding month.²⁶ We do not

²⁵Check and coupon households were asked, "Which of the following statements best describes the food eaten in your household last month: enough of the kinds of food we want to eat; enough, but not always the kinds of food we want to eat; sometimes not enough to eat; or often not enough to eat."

²⁶The finding of no effect of cash-out on respondents' perceptions of food adequacy is consistent with our previously reported finding of no effect of cash-out on the availability of food energy, protein, and seven micronutrients (see Tables IV.6, IV.7, and IV.8). Also, the finding that 16 percent of check recipients and 19 percent of coupon recipients perceived their households to sometimes or often have not enough food is roughly consistent with the finding that the availability of food energy and five micronutrients was less than the RDAs for those nutrients for between 15 percent and 25 percent of both check and coupon households.

TABLE IV.11

RECIPIENTS' PERCEPTIONS OF ADEQUACY OF HOUSEHOLD FOOD SUPPLY
(Percentage of Households)

	Mean Value		Difference in Means		
	Check	Coupon	Absolute	Percentage	t-Statistic
Adequacy of Food Eaten During Past Month					
Enough of types of food we want to eat	35.46	34.04	1.42	4.16	0.73
Enough, but not always types we want to eat	48.45	47.13	1.32	2.80	0.64
Sometimes or often not enough	16.02	18.57	-2.55	-13.74	1.64
Any Days Household Without Food or Resources During Past Month?					
Yes	21.20	23.43	-2.23	-9.54	1.31
Number of days ^a	5.01	5.51	-0.50	-9.11	1.56
Any Household Member Skip Meals due to Inadequate Food or Resources During Past Month?					
Yes	8.21	9.90	-1.69	-17.12	1.44
Number of days when meals were skipped ^b	5.17	5.62	-0.45	-8.06	0.65
Sample Size	1,255	1,131			

SOURCE: Evaluation of the Alabama Food Stamp Cash-Out Demonstration, household survey.

NOTE: One-tailed statistical tests for lower perceptions of food adequacy among check recipients were performed on all check-coupon differences shown in this table.

None of the differences shown in this table is statistically significant at the 90 percent confidence level or higher.

"Past month" is the month preceding the survey.

^aFor households reporting at least one day without food or resources to buy food during the past month.

^bFor households reporting that a household member skipped one or more meals on at least one day during the past month.

know whether these perceptions of food adequacy were influenced by the size of the food stamp benefit, how the benefit was used, or other factors.

These findings show that check households were no more likely than coupon households to report that they sometimes or often did not have enough food. Appendix Tables J.5.A and J.5.B present very similar findings for the urban and rural subsamples. Thus, on the basis of the perceptions of food stamp recipients, we have no evidence that cash-out diminished the adequacy of recipients' household food supplies.

The household survey provides additional evidence that check households did not generally perceive their home food supply situation to have deteriorated under cash-out. The check households whose benefit form had been converted from coupons when the cash-out demonstration began were asked whether there had been any changes in the quantity and quality of the food that they purchased. Eighty-three percent reported buying either more food or about the same amount of food with checks as with coupons, and 90 percent felt that the quality of the food was the same or better.

2. FSP Households' Experiences in Running Out of Food

If budgeting food expenses is more difficult with checks than with coupons, then check recipients might be more likely than coupon recipients to have inadequate home food supplies. The household survey included two questions that were designed to obtain somewhat more objective information on the incidence of inadequate home food supplies. One survey question asked households whether there had been any days in the previous month during which their household had neither food nor the resources to buy food.²⁷ A second question asked whether any household member had skipped

²⁷Check and coupon households were asked: "Last month were there days when your household had no food, money, or food stamps to buy food?; if so, on how many days did this happen?"

meals because the household lacked food or the resources to buy food.²⁸ In general, check households were no more likely than coupon households to report having run out of food or having skipped meals. We discuss these findings in greater detail in this section.

Approximately one-fifth of both check recipients and coupon recipients reported having neither food nor the resources to buy food on one or more days during the most recently completed month preceding the survey month (Table IV.11).²⁹ Check households were no more likely than coupon households to report this problem. In fact, a smaller percentage of check households than coupon households reported having neither food nor the resources to buy food (21 percent versus 23 percent). Of the households reporting the problem, coupon recipients, relative to check recipients, reported having neither food nor the resources to buy food for slightly more days during the month preceding the survey (an average of five and one-half days for coupon recipients versus five days for check recipients). Thus, no evidence suggests that cash-out increased the number of days during which check households lacked food or the resources to buy food.

A smaller percentage of check households than coupon households reported skipping meals (8 percent versus 10 percent, as shown in Table IV.11). Of the households that reported skipping meals,

²⁸Check and coupon households were asked: "Last month did anyone in your household skip any meals because there was not enough food, or money or food stamps to buy food?; if so, on how many days did this happen last month?"

²⁹Table IV.11 shows that the percentage of respondents reporting having no food or no resources to buy food on one or more days during the most recently completed month exceeded the percentage reporting sometimes or often not having enough food to eat during the previous month. For example, 21 percent of check households reported going at least one day without food or the resources to buy food, whereas only 16 percent of check households reported that they sometimes or often did not have enough food to eat. This difference probably is due to differences in the wording of the questions. The question about "enough" food yields a subjective measure of the adequacy of the household's food supply because it asked respondents to characterize the adequacy of the household food supply; the other question yields a more objective measure because it asked respondents to recall any days with insufficient food or resources to buy food. It is also likely that, on some days, households *began* the day without food or the resources to buy food but were able to obtain food during the day (perhaps through friends or food pantries) in order to meet meal requirements. A respondent in this situation would probably have responded positively to the general question about whether the household had had enough food to eat, but positively as well to the question about whether the household had sometimes been without food or the resources to buy food.

check households skipped meals on an average of five days, whereas coupon households did so on an average of five and one-half days. Thus, the data reject the hypothesis that check recipients are more likely than coupon recipients to skip meals because of a lack of food or resources to buy food.

3. Actions Taken by Recipients Because Households Lacked Food

If cash-out causes benefits that are normally budgeted for food to be diverted to nonfood expenditures, recipients might try to compensate by seeking out other program or nonprogram sources of food. The survey addressed this issue by asking households whether they took any of several actions to obtain food during the month preceding the survey because they did not have enough food.³⁰

The five most frequently mentioned actions to obtain food (Table IV.12) were: (1) buying or serving less expensive meals, (2) serving smaller meals, (3) borrowing food from friends or relatives, (4) borrowing money from friends or relatives, and (5) eating at the homes of friends or relatives.³¹ About one-third of the households that reported any action to obtain food reported taking each of the first two actions, whereas roughly one-tenth reported taking each of the last three actions. Check recipients were no more likely than coupon recipients to report taking these actions; indeed, they were about 25 percent *less* likely than coupon recipients to borrow food from friends or relatives or to eat at the homes of friends or relatives.

³⁰Respondents were asked: "Last month did anyone in your household do any of the following because there was not enough food to eat? Borrow food from friends or relatives; Eat at friends' or relatives' homes; Take money out of savings to buy food; Borrow money to buy food; Buy food on credit; Work extra hours or jobs; Buy or serve smaller meals; Eat one or more meals at a soup kitchen or church; Get food from a place like a food bank or food pantry; Apply for WIC benefits; Apply for AFDC benefits; or, anything else?"

³¹In interpreting the findings regarding the buying or serving of less expensive or smaller meals, it should be noted that these response categories were stated and coded in *relative* terms--that is, relative to a time when the responding households did not have inadequate food. Many respondents may have routinely served small or inexpensive meals but did not so indicate when responding to this question because they had not intensified that behavior when faced with a shortage of food during the previous month.

TABLE IV.12

NUMBER AND TYPES OF ACTIONS TAKEN TO
OBTAIN FOOD DURING THE PAST MONTH
(Percentage of Households)

Measure of Household Food Supply	Mean Value		Difference in Means		
	Check	Coupon	Absolute	Percentage	t-Statistic
Household Took the Following Actions to Get Food During the Past Month					
Buy or serve less expensive meals	33.76	35.23	-1.47	-4.16	0.75
Serve smaller meals	30.28	31.27	-0.99	-3.16	0.52
Borrow money to buy food	8.54	12.20	-3.66	-30.01	2.92
Borrow food from friends or relatives	11.33	13.19	-1.86	-14.05	1.37
Eat at the homes of friends or relatives	8.79	11.58	-2.79	-24.15	2.25
Get food at food bank, food pantry, or a church	2.07	1.86	0.21	11.67	0.38
Take money out of savings to buy food	2.79	2.74	0.05	1.91	0.08
Eat one or more meals at a church, soup kitchen, or senior center	1.52	1.50	0.02	0.88	0.03
Buy food on credit	4.63	5.66	-1.03	-18.13	1.13
Take on additional work in order to pay for food	2.96	3.27	-0.31	-9.59	0.44
Apply for WIC	3.03	3.81	-0.78	-20.37	1.04
Apply for AFDC benefits	2.07	1.42	0.65	46.43	1.23
Other action in order to get food	0.48	0.72	-0.24	-32.84	0.74
Number of Actions Taken by Household to Get Food During the Past Month					
None	52.27	48.01	4.26	8.87	2.08
One	15.06	16.09	-1.03	-6.41	0.69
Two	15.94	15.92	0.02	0.13	0.01
Three or more	16.73	19.98	-3.25	-16.26	2.04
Sample Size	1,255	1,131			

SOURCE: Evaluation of the Alabama Food Stamp Cash-Out Demonstration, household survey.

NOTE: One-tailed statistical tests for a greater tendency for check recipients to take actions to obtain food were performed on the check-coupon differences shown in this table.

None of the differences shown in this table is statistically significant at the 90 percent confidence level or higher.

"Past month" is the month preceding the survey.

All households were asked whether they had taken any actions to obtain food during the past month because they did not have enough food. The top part of this table shows the types of such actions, whereas the bottom part shows the number of actions. The entire subsamples of check and coupon households were used to compute the percentages in the first two columns of this table.

WIC = Special Supplemental Food Program for Women, Infants, and Children; AFDC = Aid to Families with Dependent Children.

Check households also did not report taking more actions than coupon recipients to obtain food. The bottom portion of Table IV.12 shows that check households were four percentage points more likely to take *no action* to obtain food and were three percentage points less likely to take *three or more actions*. On the basis of these findings, we reject the hypothesis that cash-out might force recipient households to take unusual steps in order to obtain food.³²

4. Participation in Other Food-Assistance Programs and Availability of Nonpurchased Food from Sources Other than Government Programs

The survey asked households about their participation in food-assistance programs other than the FSP and about the availability of nonpurchased food from nonprogram sources. The program sources of food were the NSLP, the SBP, WIC, and the USDA commodity distribution programs. Nonprogram sources of food consisted of home-produced food and food received as a gift or in-lieu of payment.

a. Participation in Other Food-Assistance Programs

Of the four other program sources of food examined in the household survey, only for the commodity distribution program did check households report a significantly higher rate of participation than coupon households (Table IV.13). Twenty percent of check households reported receiving USDA commodities, compared with 17 percent of coupon households. In addition, check households containing a pregnant or lactating woman or a child less than 5 years of age were more likely than comparable coupon households to have reported participating in the WIC program during

³²Table IV.12 shows that about one-half of the survey respondents reported taking one or more actions to obtain food because there was not enough food to eat, but Table IV.11 indicates that the majority also reported having adequate supplies of food. This set of findings is not contradictory when we consider the following. When answering the subjective question on the adequacy of the household food supply, it is reasonable to assume that respondents considered the food supply to include food that was obtained through specific actions that were taken by household members because there was not enough food. For example, a respondent may have reported that household members had to borrow food from friends. The respondent also may have reported that the household had enough to eat if he or she thought that borrowing food enabled the household to obtain an adequate supply of food.

TABLE IV.13
PARTICIPATION IN OTHER FOOD-ASSISTANCE PROGRAMS
AND USE OF NONPURCHASED FOOD

Source of Food	Sample Size		Mean Value		Difference in Means		
	Check	Coupon	Check	Coupon	Absolute	Percentage	t-Statistic
Participation in Other Food-Assistance Programs							
National School Lunch Program							
Percent of households participating ^a	536	495	75.19	78.79	-3.60	-4.57	-1.37
Subsidy value of school lunches (dollars per week) ^b	403	390	9.72	10.68	-0.96	-8.96	1.46
School Breakfast Program							
Percent of households participating ^c	334	305	60.78	61.64	-0.86	-1.40	-0.22
Subsidy value of school breakfasts (dollars per week) ^b	203	188	4.84	4.71	0.13	2.79	0.30
Surplus Commodities							
Percent of households receiving during past month ^d	1,209	1,080	19.60	16.94	2.66	15.69	1.65 ^{††}
Food Obtained by Redeeming a WIC Voucher							
Percent of households reporting ^e	407	365	50.37	47.67	2.70	5.66	0.75
Money value of WIC food (dollars per week) ^b	205	174	13.09	12.73	0.36	2.79	0.35
Use of Nonpurchased Food							
Home-Produced Food							
Percent of households reporting ^d	1,209	1,080	18.11	17.78	0.33	1.89	0.21
Money value of home-produced food (dollars per week) ^b	219	192	5.58	4.70	0.88	18.63	1.14
Food Received as Gift or in Payment							
Percent of households reporting ^d	1,209	1,080	35.65	38.89	-3.24	-8.33	1.60
Money value of gift/pay food (dollars per week) ^b	431	420	4.47	4.56	-0.09	-1.98	0.16
Average Money Value of Non-purchased Food (dollars per week) ^d	1,209	1,080	4.84	4.69	0.15	3.19	0.38

SOURCE: Evaluation of the Alabama Food Stamp Cash-Out Demonstration, household survey.

NOTE: One-tailed statistical tests for greater participation in other programs and use of nonpurchased food by check recipients were performed on the check-coupon differences shown in this table. "Past month" is the month preceding the survey.

^aFor households with children who attend schools that serve complete USDA lunches.

^bFor households reporting use of program or food source.

^cFor households with children who attend school that serve complete USDA school breakfasts.

^dFor all households.

^eFor households with pregnant/lactating women or children less than 5 years old.

WIC = Special Supplemental Food Program for Women, Infants, and Children; USDA = U.S. Department of Agriculture.

^{††}Statistically significant at the 95 percent confidence level, one-tailed test.

the month preceding the survey (50.4 percent versus 47.7 percent).³³ However, this difference is not statistically significant.

Check and coupon households were equally likely to participate in the NSLP and the SBP during the month preceding the survey. Of check and coupon households with children attending schools that served USDA lunches and breakfasts, about 75 percent reported participating in the NSLP, and about 61 percent reported participating in the SBP.³⁴

Table IV.13 also shows that the subsidy values of benefits received under the NSLP and SBP were roughly the same for check and coupon recipients. Likewise, the money value of food obtained by redeeming WIC vouchers was quite similar for the two groups. The survey data do not permit us to separately identify and compute the money value of the surplus commodities that were used by the respondent households.

b. Nonpurchased Food from Sources Other than Government Programs

About 18 percent of both check households and coupon households used home-produced food (Table IV.13). The average monthly money value of that food was not significantly higher for check households (\$5.58) than for coupon households (\$4.70).³⁵ A slightly smaller percentage of check households than coupon households reported the use of food that was received as a gift or in-lieu of payment (36 percent versus 39 percent), but that difference is not statistically significant. The average monthly money value of that food was about \$4.50 for both groups of households.

³³The check and coupon household samples in this analysis are restricted to households containing a pregnant or lactating woman or a child less than 5 years old because only households meeting this restriction are eligible to participate in the WIC program.

³⁴The samples for these analyses are restricted to households with access to the NSLP and SBP. That is, for the NSLP analysis, the sample is restricted to households that include a child who attends a school that serves USDA school lunches. For the SBP analysis, the sample is restricted to households that include a child who attends a school that serves USDA school breakfasts.

³⁵We used imputed prices to compute the money value of nonpurchased food. The imputed price for a nonpurchased food item was the average price paid by respondents to the household survey who reported having purchased that item.

V. THE EFFECTS OF CASH-OUT ON EXPENDITURES FOR FOOD AND NONFOOD ITEMS AND ON FOOD-SHOPPING PATTERNS

By eliminating the direct link between Food Stamp Program (FSP) benefits and food purchases that exists under the coupon-based system, checks might induce recipients to reduce expenditures for food used at home. On the other hand, because cash-out does not restrict program benefits to the purchase of eligible food items only, check households might substitute expenditures for food that is prepared and eaten away from home for food formerly purchased for home use. Thus, one objective of our analysis is to assess the effect of cash-out on expenditures for food used at home, expenditures for food used away from home, and on the total amounts that households spend for food. In addition, if cash-out does reduce the total amounts that households spend for food, we are interested in determining how the freed-up money is spent for nonfood goods and services.

Converting the benefit form from coupons to checks might affect the types of stores at which recipients shop. For example, in Puerto Rico, focus group discussions held subsequent to food stamp cash-out revealed that some households shifted their food purchases from small grocery stores to supermarkets (Stanford Klapper Associates, 1985). Cash-out might also affect the frequency with which recipients shop. For example, recipients might shop more often, because it is less embarrassing to use check benefits than coupons when making purchases. In addition, cash-out might affect the frequency with which recipients shop at different types of stores, because recipients can use checks at a wide variety of stores, but can use coupons only at authorized retail food stores.

To address questions about the impact of cash-out on food and nonfood expenditures, we used data from the main questionnaire of the household survey. To address questions about the impact of cash-out on household food-shopping patterns, we used data from the screening interview for the household survey (the "screener"). In the analyses, we present sample mean values separately for check and coupon households and conduct formal difference-of-means tests to compare outcomes.

The chapter is organized into two sections. Section A discusses findings on expenditures for food used at home and for food used away from home and examines expenditure shares by broad consumption category. Section B presents findings on the types of stores at which recipients purchased food and on the usual number of shopping trips per month to each type.

A. IMPACTS ON FOOD AND NONFOOD EXPENDITURES

In Section A.1, we examine the impact of cash-out on monthly expenditures for food. In the analyses, we use the *monthly money value of purchased food used at home* as the measure of monthly expenditures for food used at home. This measure is based on information obtained from the main questionnaire. The measure is the same as that used in the analyses reported in Chapter IV, Section A.1, except that it has been converted from a weekly to a monthly basis.¹ The *monthly expenditures for food used away from home*, which is the measure of monthly expenditures for food purchased and eaten away from home, is also based on information obtained from the main questionnaire. The measure comprises the household's reported total expenditures for food eaten at restaurants, bars, cafeterias, cafes, and fast food places during the seven days preceding the interview (multiplied by 4.3 weeks, to convert to a monthly amount) plus the amount paid in the calendar month preceding the interview for school meals and for meals or snacks received at day care homes or centers.² *Total expenditures for food* is the sum of the money value of purchased food used at home and expenditures for food used away from home.³

¹This measure is based on a seven-day accounting of each individual food item used from the home food supply. We computed the money value of each reported food item that was purchased as the quantity used multiplied by the unit price. We arrived at the total money value of purchased food used at home per week by summing the money value over all of the different types of purchased foods used. We obtained the total money value of purchased food used at home per month by multiplying the per-week amount by 4.3 weeks. See Chapter III, Section C.2, for additional details.

²See Chapter III, Section C.4, for additional details.

³Two measures of monthly expenditures for food used at home are available in the data set. The measure described in the text is based on information obtained from the main questionnaire. The other measure, monthly expenditures for food from stores, is based on information from the screener
(continued...)

In Section A.2, we assess whether cash-out caused any shifts in the allocation of total expenditures away from food to various categories of nonfood goods and services. We converted monthly expenditures for food and for nine broad categories of nonfood items into *expenditure shares*. An expenditure share is the proportion of all reported expenditures allocated to a specific expenditure category.⁴

To summarize the findings, cash-out did not result in lower household expenditures for food used at home. On a per-adult-male-equivalent (AME) basis, check households reported spending slightly less for *food used at home* than did coupon households; however, the difference is very small and not statistically significant. Cash-out did not result in higher expenditures on *food used away from home*. In fact, check households reported spending somewhat less (not more) than coupon households for food used away from home per AME. Considering the combination of expenditures for food used at home and away from home, cash-out did not result in lower *total expenditures for food* per AME by food stamp households; check households reported spending about 1 percent less on all food than

³(...continued)

and equals the amount that respondents reported spending for food at supermarkets, neighborhood grocers, convenience stores, and specialty stores during the previous month. The existence of the second measure of expenditures for food used at home means that we have two sets of findings on the impact of cash-out on expenditures for food used at home and for all food. Although the findings vary slightly depending on which data set is used, the basic implications of the analysis do not change.

As discussed in detail in Appendix H, on the basis of an analysis of the structures of the two question sequences and of the use of recall aids, we believe that the findings from the main questionnaire are the more accurate. As a result, the analysis focuses on these findings.

To provide a full overview of the survey findings, the report presents results based on both measures of food expenditures. However, in light of the considerations discussed in the previous paragraph, we recommend that the reader focus on the results that are based on data from the main survey instrument, as discussed in the main body of the report. We discuss the results that are based on data from the screener in Appendix H.

⁴The existence of a second measure of expenditures for food used at home means that we have two sets of findings on the impact of cash-out on food and nonfood expenditure shares (see the discussion in Footnote 3). We present the results based on the main questionnaire in the text and discuss the results based on data from the screener in Appendix H.

coupon households, but this difference is not statistically significant.⁵ Finally, our findings provide only weak evidence that cash-out resulted in shifts of expenditures away from food to other consumption categories. For just one of nine nonfood consumption categories did we find statistically significant evidence of such a shift.

1. Expenditures for Food Used at Home and for Food Used Away from Home, and Total Expenditures for Food

In this section, we use data from the main questionnaire to discuss the impact of cash-out on expenditures for food used at home and for food used away from home, as well as on total expenditures for food. We discuss the findings for all check and coupon households, as well as for urban and rural check and coupon households.

a. Expenditures for Food Used at Home⁶

As discussed in Chapter IV, Section A.1, we have concluded from our analysis of the money value of purchased food used at home per household that cash-out did not result in less spending for food used at home. Table V.1 shows that check households used purchased food at home worth an average of \$238.50 per month (\$55.46 per week), whereas coupon households used purchased food at home worth an average of \$235.84 per month (\$54.85 per week). Adjusting for household composition, check households used purchased food at home that was worth \$126.53 per

⁵In this section, we use the AME measure of household size because our ultimate objective is to analyze total food expenditures (the sum of expenditures for food used at home and expenditures for food used away from home). In analyzing total food expenditures, it is neither useful nor desirable for the measure of household size to adjust for the proportion of meals eaten from the household food supply.

⁶The figures cited in this section for the money value of food used at home are simply the monthly counterparts to the figures cited in Chapter IV, Section A.1 (obtained by multiplying the weekly amounts by 4.3). Thus, we present no new information in this section. This section is necessary to completely describe the derivation of a measure of total monthly expenditures for food. That measure is the sum of monthly expenditures for food used at home (described in this section) and expenditures for food used away from home (described in the following section).

TABLE V.1

EXPENDITURES FOR FOOD USED AT HOME AND FOOD USED AWAY FROM HOME

Measure of Food Expenditure	Mean Value		Difference in Means		
	Check	Coupon	Absolute	Percentage	t-Statistic
Food Used at Home					
Expenditure for food used at home (per household)	\$238.50	\$235.84	\$2.66	1.13	0.43
Expenditure for food used at home (per AME)	\$126.53	\$126.87	-\$0.34	-0.27	0.12
Percent of total food expenditures for food used at home	95.27	94.93	0.34	0.36	0.78
Percent of meals eaten at home	88.42	87.26	1.16	1.33	2.00
Food Used Away from Home					
Expenditure for food used away from home (per household)	\$14.13	\$15.07	-\$0.94	-6.27	0.63
Expenditure for food used away from home (per AME)	\$7.77	\$8.77	-\$1.00	-11.41	0.92
Percent of total food expenditures for food used away from home	4.73	5.07	-0.34	-6.73	0.78
Percent of meals eaten away from home					
--Paid for	11.58	12.74	-1.16	-9.09	2.00
--Free	2.95	3.16	-0.21	-6.60	0.75
	8.62	9.57	-0.95	-9.92	1.84
Total Expenditures for Food					
Sum of the expenditures for food used at home and expenditures for food used away from home (per household)	252.45	\$250.29	\$2.16	0.86	0.33
Sum of the expenditures for food used at home and expenditures for food used away from home (per AME)	\$134.75	\$135.74	-\$0.99	-0.73	0.31
Sample Size					
	1,209	1,080			

SOURCE: Evaluation of the Alabama Food Stamp Cash-Out Demonstration, household survey.

NOTE: One-tailed statistical tests for (1) lower use of food at home and total expenditures for food by check recipients, and (2) greater use of food away from home by check recipients were performed on the check-coupon differences shown in this table.

Data are from the main questionnaire only.

AME = adult male equivalent.

month per AME, compared with \$126.87 for coupon households. The reduction of \$0.34 per month per AME is not statistically significant.

b. Expenditures for Food Used Away from Home

The analysis provides no evidence that cash-out led to an increase in expenditures for food used away from home. Table V.1 shows that check households spent an average of \$0.94 less per month per household for food used away from home than did coupon households (\$14.13 versus \$15.07). Accounting for differences in the ages and genders of household members, check households spent an average of \$1.00 less per month per AME for food used away from home than did coupon households (\$7.77 versus \$8.77). The lower reported spending on food away from home per household and per AME by check households relative to coupon households leads us to conclude that cash-out did not result in an increase in expenditures for food used away from home.

c. Total Expenditures for Food

Findings from the analysis of the household survey data indicate that cash-out did not lead to reductions in the total amount that participants in the FSP spent for food (including both food used at home and food used away from home). Check households spent slightly more (not less) per month per household for food than did coupon households (\$252.45 versus \$250.29; Table V.1). Adjustment for household size and composition results in a reversal of the sign of the estimated check-coupon difference in total expenditures for food. Table V.1 shows that check households spent \$0.99 less per month per AME for all food (\$134.75, versus \$135.74 for coupon households). However, this difference, which represents a reduction of less than 1 percent relative to the mean monthly expenditure for all food per AME under coupon issuance, is not statistically significant.

d. Expenditures for Food by Urban and Rural Households

Separate analyses of food expenditures by urban and rural households confirm the aggregate findings, presented in the preceding three subsections, that cash-out did not lead to reductions in

expenditures for food used at home or in total expenditures for food, nor did it lead to increases in expenditures for food used away from home (Appendix Tables J.6.A and J.6.B).

e. Additional Findings

Check and coupon households did not differ in the relative proportions of total food expenditures that were for food used at home and for food used away from home. For both check and coupon households, about 95 percent of food expenditures was for food used at home, and about 5 percent was for food used away from home (Table V.1). This pattern held for urban and rural households, as shown in Appendix Tables J.6.A and J.6.B.

There is no evidence from this analysis that cash-out led food stamp recipients to eat a greater percentage of their meals away from home. Table V.1 shows that check households were about 1 percentage point *less* likely than coupon households to eat meals away from home (11.58 percent versus 12.74 percent). This pattern also held for urban and rural households.

2. Food and Nonfood Expenditure Shares

Check and coupon households allocated the same share of total expenditures to food. Expenditures for all food items (purchased food used at home and purchased food used away from home) accounted for 43 percent of the total expenditures for both check and coupon households (Table V.2). Similarly, check and coupon households in urban and in rural locations devoted approximately 43 percent of their total expenditures to food (Appendix Tables J.7.A and J.7.B).⁷

The data from the main questionnaire indicate that in only one of nine broad nonfood consumption categories did the mean expenditure share of check households exceed that of coupon households at the 90 percent confidence level or higher.⁸ Table V.2 shows that check households

⁷The percentage of expenditures for food seems high, raising the question of whether there is a tendency in the data either for food expenditures to be over-reported or for other expenditures to be under-reported. Analysis of these issues is presented in Appendix H.

⁸We are counting the two components of "shelter" ("housing" and "utilities") as separate consumption categories.

TABLE V.2
EXPENDITURE SHARES, BY BROAD CONSUMPTION CATEGORY
(Percentage)

Consumption Category	Share of Total Expenditures		Difference in Means		
	Check	Coupon	Absolute	Percentage	t-Statistic
All Food	43.31	43.43	-0.12	-0.28	0.15
Food at home	41.34	41.27	0.07	0.17	0.09
Food away from home	1.98	2.17	-0.19	-8.77	0.94
All Shelter	33.98	32.80	1.18	3.59	1.53 [†]
Housing	14.16	14.04	0.12	0.93	0.21
Utilities	19.82	18.76	1.06	5.61	1.88 ^{††}
Medical	4.70	4.43	0.27	5.87	0.66
Transportation	8.28	8.60	-0.32	-3.72	0.72
Clothing	5.23	5.62	-0.39	-6.94	1.08
Education	1.02	1.26	-0.24	-19.05	1.91
Dependent Care	0.62	0.81	-0.19	-23.46	1.37
Recreation	1.47	1.61	-0.14	-8.70	0.89
Personal Items	1.39	1.43	-0.04	-3.50	0.42
Total	100.00	100.00			
Mean Total Expenditure	\$635.05	\$632.49			
Sample Size	1,209	1,080			

SOURCE: Evaluation of the Alabama Food Stamp Cash-Out Demonstration, household survey.

NOTE: One-tailed statistical tests for lower expenditure shares for "all food" and "food at home" and for greater expenditure shares for other consumption categories among check recipients were performed on the check-coupon differences shown in this table.

Data are from the main questionnaire only.

[†]Statistically significant at the 90 percent confidence level, one-tailed test.

^{††}Statistically significant at the 95 percent confidence level, one-tailed test.

allocated roughly 1 percentage point more of their expenditures to utilities than did coupon households (19.8 versus 18.8 percent). Further investigation would be required to substantiate this finding and to understand the behavior underlying the shift of expenditures to utilities.⁹ For the remaining eight nonfood consumption categories, check households reported expenditure shares that were not significantly larger than those reported by coupon households (medical and housing expenses) or were smaller than those reported by coupon households (dependent care, recreation, clothing, transportation, and personal items).

Urban check households allocated significantly more of their expenditures to utilities than did urban coupon households (20.7 percent versus 19.0 percent). Among rural households, the check-coupon differential in utility expenditure shares was much smaller and was not statistically significant. Thus, it appears that greater spending on utilities by urban check recipients was responsible for the finding of a significantly greater share of expenditures on utilities among all check recipients. Rural check recipients allocated a significantly greater share of their total expenditures to dependent care than did rural coupon recipients (0.7 percent versus 0.4 percent), whereas the opposite was true for urban households.¹⁰

B. FOOD-SHOPPING PATTERNS

In the next two subsections, we discuss findings based on data from the screener on check-coupon household differences in shopping patterns. The first subsection discusses differences in the types of stores at which food used at home was purchased; the second subsection discusses differences in the frequency with which the different types of stores were patronized. We discuss results for all households, as well as for urban and rural households.

⁹Check recipients may have used their initial cash benefits to make payments on overdue utility bills (that is, on bills incurred when they were still receiving benefits in the form of coupons), rather than to actually increase their consumption of utilities.

¹⁰See Appendix Tables J.7.A and J.7.B for all of the urban and rural check-coupon household differences reported in this paragraph.

1. Types of Stores at Which Food Used at Home Is Purchased

The differences between check and coupon households in the types of stores that were patronized to purchase food used at home were relatively minor. Table V.3 shows that, compared with coupon households, check households were 4.9 percentage points less likely to purchase food at grocery stores, 1.2 percentage points less likely to purchase food at specialty stores, and 0.8 percentage points more likely to purchase food at convenience stores. Only the check-coupon household difference for food purchases from grocery stores is statistically significant. The percentage of check and coupon households purchasing food at supermarkets did not differ. Ninety-nine percent of both check and coupon households purchased food from supermarkets during the month preceding the interview. In general, we observed similar patterns for urban and rural FSP participants.

2. Number of Shopping Trips per Month, by Type of Store

Check and coupon households did not differ in the total number of shopping trips made in the month preceding the interview. Both check and coupon households reported making an average of about eight shopping trips during the month preceding the interview (Table V.3).

Check and coupon households did not differ substantially in the number of trips made to various types of stores.¹¹ Check households made an average of 0.2 more trips to supermarkets (4.2 trips versus 4.0 trips) and 0.3 fewer trips to grocery stores than did coupon households (2.3 trips versus 2.5 trips). However, neither difference is statistically significant at the 90 percent level, with a two-tailed test.

¹¹Note that the mean values for the number of trips, by type of store, shown in Table V.3 are calculated for all check and coupon households, rather than for those making at least one trip to a particular type of store under consideration.

TABLE V.3
SHOPPING PATTERNS FOR FOOD USED AT HOME

	Mean Value		Difference in Means		
	Check	Coupon	Absolute	Percentage	t-Statistic
Percentage of Households Using Type of Store					
Supermarket	98.59	98.61	-0.02	-0.02	0.04
Neighborhood grocery store	37.72	42.59	-4.87	-11.45	2.38 **
Convenience store	23.16	22.31	0.85	3.77	0.48
Specialty store	25.89	27.13	-1.24	-4.57	0.67
Number of Trips Past Month					
Supermarket	4.17	3.96	0.21	5.30	1.39
Neighborhood grocery store	2.23	2.51	-0.28	-11.16	1.30
Convenience store	1.29	1.21	0.08	6.61	0.52
Specialty store	0.58	0.58	0.00	-0.00	0.03
All stores	8.24	8.23	0.01	0.12	0.02
Sample Size	1,209	1,080			

SOURCE: Evaluation of the Alabama Food Stamp Cash-Out Demonstration, household survey.

NOTE: Two-tailed statistical tests were performed on all check-coupon differences shown in this table.

"Past month" is the month preceding the screening interview.

Data are from the screening interview.

**Statistically significant at the 95 percent confidence level, two-tailed test.

VI. RECIPIENTS' ATTITUDES TOWARD AND EXPERIENCES WITH CASH-OUT

Coupon benefits might place demands that some recipients perceive as making participation in the Food Stamp Program (FSP) burdensome or costly.¹ In states such as Alabama, where coupons are issued over-the-counter, recipients must make a monthly trip to food stamp issuance offices to pick up coupons; such a trip can entail out-of-pocket expenses for transportation or child care. Coupons, which can be used only at stores participating in the FSP, might limit the food-purchasing choices of recipients. In addition, recipients who use coupons must pay separately for the portions of their groceries that are food-stamp-eligible and for those that are not; the separate payments might increase the check-out times at the cash register. Finally, recipients who use coupons might feel stigmatized or embarrassed, because either the cashier or the recipient must detach the coupons from the coupon booklet, signalling to other patrons that the customer is a recipient of food stamps. Under cash-out, each of these burdens, or "costs," of program participation can be eliminated.

However, burdens or costs might also be associated with the use of check benefits. Two aspects of cash-out are of particular concern. First, under cash-out, recipients can use their benefits to purchase any good or service, thus raising concern that recipients will have greater difficulty budgeting food expenditures with check benefits than with coupons. Second, recipients might have problems cashing benefit checks (for example, some stores might refuse to cash the benefit checks) or might have to pay check-cashing fees.

This chapter uses data from the household survey and the focus group discussions to analyze recipients' attitudes toward and experiences with the check- and coupon-issuance systems in Alabama. For topics for which we have household interview data, the analysis entails presenting means and distributions of responses to questionnaire items separately for check and coupon recipients and then

¹The word "costly" is used in its broad economic sense. Direct monthly charges to program applicants and participants are prohibited by law.

comparing the responses. The focus group discussions provide useful information on and insights into the impacts of cash-out on several outcomes of interest, some of which are not addressed by the household survey. Because the results from the focus group discussions are based on a small number of nonindependent observations, they cannot support tests of hypotheses about recipient behaviors in any formal statistical sense. The analysis of the data obtained from the discussions is descriptive, and we include selected quotations in the text to highlight recipients' perceptions of cash-out.²

This chapter is organized into five sections. Section A describes the findings on what recipients like and dislike about receiving check and coupon benefits, on which benefit form they prefer, and on the reasons for their preferences. Section B discusses the findings on recipients' perceptions of the relative utility of coupon and check benefits in food budgeting and spending. Section C describes the experiences of check recipients when cashing benefit checks and discusses check-cashing fees. Section D discusses the time and money costs of program participation. Section E discusses the incentives provided by check benefits to apply for FSP benefits and to remain in the program, as reported by check recipients whose benefits have always been in the form of checks.

A. RECIPIENTS' OPINIONS ABOUT BENEFIT CHECKS AND COUPONS

The household survey asked the respondents to identify as many as four things that they thought were "good about receiving food stamp benefits in the form of checks" and as many as four that were "not good about check benefits." The survey obtained analogous information about coupons.³ The results presented in Sections VI.A.1 and VI.A.2 are based on the responses of 1,255 check recipients and 1,131 coupon recipients to these questions.

²See Appendix D for a discussion of the methodology used to conduct the focus groups and to analyze the resultant data.

³These questions were open-ended. Respondents were first asked what they thought was good about getting benefits as checks; then, what was not good about getting benefits as checks; then, what was good about getting benefits as coupons; and then, what was not good about getting benefits as coupons.

In the four focus groups, a total of 28 recipients who had used both checks and coupons were asked which benefit form--checks or coupons--they preferred, and to give the reasons for their preferences. Section VI.A.3 presents the findings on preferences for checks or for coupons on the basis of the focus group discussions.⁴

To summarize the findings, responses to the survey questions on what is good and what is bad about benefit checks and coupons, as well as the evidence from the focus groups, indicate that check recipients who had used both checks and coupons favored checks, rather than coupons. The major reasons given by those participants for preferring check benefits were that the benefits could be used to purchase items other than food, that the recipients no longer had to make a trip to the food stamp issuance office to obtain their benefits, that checks reduced the stigma or embarrassment of program participation, and that checks made shopping easier.

1. Recipients' Perceptions of What Is Good and Bad About Checks and Coupons

All respondents to the household survey were asked what they thought was good and what was not good about checks and about coupons. Both check and coupon recipients gave very similar responses to these questions. The first subsection that follows discusses recipients' attitudes toward benefit checks. The second subsection describes attitudes toward coupons.

a. Attitudes Toward Benefit Checks

What Is Good About Checks. When asked what is good about check benefits, the feature that both check and coupon households mentioned most often was that check benefits could be used for nonfood expenses. Forty-three percent of check households and 39 percent of coupon households

⁴We conducted two focus groups with food stamp recipients in Fayette County, one with elderly recipients (60 years of age or older), and one with nonelderly recipients (younger than 60 years of age). Two focus groups were conducted with recipients in Birmingham, one with elderly recipients, and one with nonelderly recipients. The discussions in Fayette County provided information on the experiences and opinions of elderly and nonelderly recipients residing in a rural area; those in Birmingham provided information on the experiences and opinions of elderly and nonelderly recipients from an urban area.

mentioned this benefit (Table VI.1). Unrestricted purchasing was also the feature most often cited by urban check and coupon recipients and by rural check and coupon recipients when asked what is good about check benefits (Appendix Table J.8). However, urban check households were 12 percentage points more likely than rural check households to cite this feature (49 percent versus 37 percent).

Check and coupon recipients also liked the fact that, under cash-out, food stamp benefits are delivered by mail. Sixteen percent of check households mentioned not having to go to the food stamp issuance office every month to pick up their benefits as a good thing about checks (Table VI.1). This response was the second most frequent response of check recipients to the question, "What is good about checks?" Seven percent of coupon households mentioned this feature as a good thing about checks. (This response was the fourth most frequent response of coupon recipients. "Do not know" and "nothing" were, respectively, the second and third most frequent responses of coupon recipients to the question.) Urban check households were somewhat more likely than rural check households to cite not having to make a trip to the issuance office to obtain benefits as an advantage of checks (19 percent versus 13 percent; Appendix Table J.8).

Assuming that responses in the categories "do not feel embarrassed," "allow you to feel dignified," and "no problems at the check-out line" all express the sentiment that cash-out eliminates the "stigma" of program participation, 10 percent of check recipients mentioned at least one reason related to the elimination of stigma when asked what is good about check benefits (results not shown); 5 percent of coupon recipients mentioned at least one reason related to the elimination of stigma.⁵ Rural

⁵Note that the percentage of check households mentioning a stigma-related reason (9.6 percent) is somewhat less than the percentage obtained by simply summing the percentages for the three categories (10.3 percent). The same relationship holds for coupon households (4.7 percent versus 5.2 percent). The former percentage is the correct one to report. One cannot simply sum the percentages of the individual categories; doing so would overstate the percentage of respondents holding this attitude, because respondents could mention as many as four things that they thought were good about checks.

TABLE VI.1

RECIPIENTS' OPINIONS ON WHAT IS GOOD ABOUT FOOD STAMP PROGRAM CHECKS
(Percentage of Households)

What Is Good About Checks	Check Households			
	Converted to Checks	Checks Always	All Check Households	Coupon Households
Can be used for items other than food	42.7	47.0	42.9	39.4
Do not have to go to the issuance office	17.0	9.7	16.2	6.9
Have more choices of food stores	5.8	6.0	5.7	4.0
Do not stand in line for a long time	5.5	3.7	5.3	2.5
More convenient to use/easier to spend	5.3	4.5	5.3	2.5
Do not feel embarrassed	5.0	7.5	5.3	2.8
Can budget food expenses better	3.3	3.0	3.3	1.0
No problems at the check-out line	3.0	2.2	2.9	1.1
Give more control over the household budget	2.3	3.0	2.4	1.9
Allow you to feel dignified	2.0	1.5	2.1	1.2
Are not difficult to cash	1.7	3.0	1.8	0.4
Make sure benefits are spent on food	1.4	3.0	1.6	0.4
Need benefits to survive	1.1	2.2	1.2	0.6
Are less likely to be stolen	1.1	0.0	1.0	0.5
Benefits in cash	0.6	0.0	0.6	0.7
Issued the same time each month	0.5	0.0	0.5	0.0
ATPs are never late	0.5	0.0	0.5	0.0
Do not go to post office to pick them up	0.5	0.0	0.5	0.1
ATPs are never stolen	0.2	0.0	0.2	0.0
Allow you to save money	0.3	0.0	0.2	0.1
Less apt to misplace or lose	0.2	0.0	0.2	0.2
Other	1.7	0.7	1.6	2.4
Nothing	9.4	6.0	9.1	14.9
No comment/no opinion	3.9	5.2	4.0	5.0
Refused	0.2	0.0	0.2	0.7
Do not know	5.0	6.0	5.2	19.2
Number of Households	1,111	134	1,255	1,131

SOURCE: Evaluation of the Alabama Food Stamp Cash-Out Demonstration, household survey.

NOTE: Percentages do not sum to 100 percent because respondents could mention more than one thing that they thought was good about check benefits.

Sample sizes of "Converted to Checks" and "Checks Always" households do not sum to sample size of "All Check Households" because the status of ten households could not be determined.

ATP = authorization-to-participate card.

check households were more likely than urban check households to cite this feature as an advantage of check benefits. Twelve percent of rural check recipients mentioned at least one reason related to the elimination of stigma, compared with 7 percent of urban check households (results not shown).

Check recipients also mentioned unrestricted food-purchasing locations and convenience as advantages of check benefits. Six percent of check recipients cited having more choices of food stores as a good thing about checks (Table VI.1). Five percent of check recipients mentioned that checks were more convenient than coupons to use. In addition, 5 percent of check recipients mentioned not having to stand in line for long at issuance offices as a good thing about check benefits.

What Is Not Good About Checks. "Nothing" was the most frequent response of check recipients to the question, "What is not good about checks?" and the second most frequent response of coupon households. Forty-four percent of check households and 19 percent of coupon household gave this response (Table VI.2). The responses of urban and rural households followed the same pattern (Appendix Table J.8). Check recipients who had always received their benefits in the form of checks were less likely than recipients whose benefit form had been converted from coupons to checks to find fault with check benefits; 52 percent of checks-always recipients responded "nothing," compared with 43 percent of converted-to-checks recipients.

Check and coupon recipients generally agreed about the features of check benefits that they perceived as not good. When we asked recipients what they thought was not good about check benefits, 13 percent of check households mentioned that checks do not ensure that FSP benefits are spent on food. Coupon households were more concerned than check households about the potential diversion of cash benefits from food to other household expenses; coupon households were more than twice as likely (31 percent versus 13 percent) to mention this feature when asked what is not good

TABLE VI.2

RECIPIENTS' OPINIONS ON WHAT IS NOT GOOD ABOUT FOOD STAMP PROGRAM CHECKS
(Percentage of Households)

What Is Not Good About Checks	Check Households			
	Converted to Checks	Checks Always	All Check Households	Coupon Households
Do not make sure benefits are spent on food	13.0	11.2	12.7	31.2
Do not budget food expenses as well	6.1	1.5	5.7	2.6
Need to pay a fee to cash checks	5.0	3.7	4.9	4.5
Forced to pay higher prices	3.8	4.5	4.0	6.3
Can be used for items other than food	3.3	3.7	3.4	6.0
Not enough benefits to buy things	2.5	3.0	2.5	0.4
Give less control over household budget	2.4	0.7	2.2	1.5
Cash is used to buy alcohol/cigarettes	1.9	0.7	1.8	3.4
Have been late	1.4	0.7	1.4	0.0
Are difficult to cash	1.3	0.7	1.2	1.7
Cash is used to buy drugs	1.4	0.0	1.2	2.3
Checks have less value than food stamps	1.1	1.5	1.1	1.1
Are more likely to be stolen	1.1	0.7	1.0	0.7
Easy to misplace or lose	0.4	0.0	0.3	0.4
Too much money to carry around	0.4	0.0	0.3	0.0
Have been stolen	0.1	0.7	0.2	0.2
Dissatisfied with Food Stamp Program	0.1	0.7	0.2	0.1
Inconvenient/not easy to cash or redeem	0.2	0.0	0.2	0.4
Difficult to budget/issued first of month	0.3	0.0	0.2	0.2
Cause problems in the checkout line	0.3	0.0	0.2	0.1
Have fewer choices of food stores	0.1	0.0	0.1	0.1
Feel embarrassed	0.1	0.0	0.1	0.1
Do not feel dignified	0.1	0.0	0.1	0.1
ATPs have been stolen	0.1	0.0	0.1	0.2
Other	3.7	3.7	3.7	2.7
Nothing	43.4	52.2	44.2	19.0
No comment/no opinion	2.1	3.7	2.3	1.9
Refused	1.7	0.7	1.6	1.6
Do not know	7.9	9.0	8.0	18.3
Number of Households	1,111	134	1,255	1,131

SOURCE: Evaluation of the Alabama Food Stamp Cash-Out Demonstration, household survey.

NOTE: Percentages do not sum to 100 percent because respondents could mention more than one thing that they thought was not good about check benefits.

Sample sizes of "Converted to Checks" and "Checks Always" households do not sum to sample size of "All Check Households" because the status of ten households could not be determined.

ATP = authorization-to-participate card.

about benefit checks. Urban and rural coupon recipients were also twice as likely as urban and rural check recipients to cite this feature (Appendix Table J.8).

If we assume that responses in the categories "do not make sure benefits are spent on food," "can be used for items other than food," "cash is used to buy drugs," and "cash is used to buy alcohol/cigarettes" express the sentiment that cash-out makes it less likely that benefits will be spent on food, then 18 percent of check respondents and 41 percent of coupon respondents mentioned at least one reason related to the diversion of benefits from food to nonfood goods and services (results not shown). Check households whose benefits had been converted from coupons were only slightly more likely than checks-always households to cite this characteristic of cash-out as a bad thing (18 percent versus 16 percent).

The only other feature of check benefits that appeared to concern a significant number of recipients is the effect of the benefit form on budgeting food expenditures. However, only a relatively small minority of check and coupon households, 6 percent and 3 percent, respectively, mentioned not being able to budget food expenses as well with checks as with coupons (Table VI.2).

b. Attitudes Toward Coupons

In general, the responses to the question, "What is good about coupons?" were the same as the responses to the question, "What is not good about checks?" Similarly, recipients' responses to the question, "What is not good about coupons?" were the same as those to the question, "What is good about checks?" We discuss the responses of check and coupon recipients to the questions about what is good and not good about coupons in the next two subsections.

What Is Good About Coupons. The feature of coupon benefits that check and coupon households liked most is that coupons make it more likely that FSP benefits will be spent on food. Twenty-six percent of check households and 38 percent of coupon households mentioned this feature (Table VI.3). The percentages of urban and rural check and coupon households, respectively, citing

TABLE VI.3

RECIPIENTS' OPINIONS ON WHAT IS GOOD ABOUT FOOD STAMP PROGRAM COUPONS
(Percentage of Households)

What Is Good About Coupons	Check Households			
	Converted to Checks	Checks Always	All Check Households	Coupon Households
Make sure benefits are spent on food	26.6	23.9	26.2	37.8
No taxes charged	17.6	17.2	17.8	25.8
Can budget food expenses better	12.1	5.2	11.2	12.6
Cannot be used for items other than food	6.0	8.2	6.3	8.8
Give more control over the household budget	5.1	2.2	4.9	5.1
Need benefits to survive	4.6	2.2	4.3	4.6
Get higher dollar value with stamps	2.4	2.2	2.4	2.3
More convenient/easier to spend	1.4	0.7	1.3	1.2
Do not need to pay a fee	1.2	0.7	1.1	1.1
Can be used for items other than food	0.9	0.7	0.9	1.1
ATPs are never late	0.5	0.7	0.6	0.2
Issued the same time each month	0.5	0.7	0.6	0.1
More choices of food stores	0.6	0.0	0.6	0.4
Are less likely to be stolen	0.5	0.0	0.5	0.4
Are not difficult to cash	0.5	0.0	0.5	0.6
No problems at the checkout line	0.3	0.7	0.3	0.3
Do not have to carry cash	0.4	0.0	0.3	0.3
Cannot be used to buy alcohol/cigarettes	0.1	1.5	0.2	0.4
Allow you to save money	0.3	0.0	0.2	0.1
Do not feel embarrassed	0.2	0.0	0.2	0.1
Acceptable in most stores	0.1	0.0	0.2	0.0
Do not stand in line for a long time	0.3	0.0	0.2	0.0
Hard to sell	0.1	0.0	0.1	0.2
Cannot be used to buy drugs	0.0	0.7	0.1	0.0
ATPs are never stolen	0.1	0.0	0.1	0.3
Other	1.5	0.0	1.4	1.1
Nothing	12.4	12.7	12.4	3.4
No comment/no opinion	3.3	5.2	3.5	2.2
Refused	1.3	2.2	1.4	0.5
Do not know	6.6	16.4	7.6	4.5
Number of Households	1,111	134	1,255	1,131

SOURCE: Evaluation of the Alabama Food Stamp Cash-Out Demonstration, household survey.

NOTE: Percentages do not sum to 100 percent because respondents could mention more than one thing that they thought was good about coupon benefits.

Sample sizes of "Converted to Checks" and "Checks Always" households do not sum to sample size of "All Check Households" because the status of ten households could not be determined.

ATP = authorization-to-participate card.

this feature are virtually identical to the percentages of all check and coupon households (Appendix Table J.8).

The second most commonly cited benefit by both check and coupon households was that households do not have to pay sales taxes on food that is purchased with food stamps. Eighteen percent of check recipients, compared with 26 percent of coupon recipients, gave this response (Table VI.3). Urban check and coupon recipients were between 3 and 5 percentage points more likely than their rural counterparts to cite this feature as a good thing about coupons (Appendix Table J.8). Although fewer check recipients than coupon recipients gave this response, many check and coupon recipients apparently did not know that check recipients received higher FSP benefits to offset the sales tax that they had to pay.⁶

Easier budgeting of household food expenses was another advantage of coupons cited by both check and coupon recipients. Eleven percent of check households and 13 percent of coupon households reported that they were able to budget food expenses better with coupons than with checks (Table VI.3). Twelve percent of households whose benefits had been converted from coupons to checks cited this feature, compared with 5 percent of checks-always households. Urban check and coupon recipients were more likely than their rural counterparts to cite this feature as a good thing about coupons (Appendix Table J.8).

⁶In Alabama, a sales tax is charged on cash purchases, but not on coupon purchases. The state sales tax rate in Alabama is 4 percent. However, counties and municipalities can impose additional sales taxes. The cumulative sales tax rate for 7 of the 12 counties participating in the demonstration equaled 7 percent; for the remaining 5 counties, the cumulative sales tax rate equaled 8 percent. The Alabama Department of Human Resources added a 7 percent sales tax offset to the FSP benefits of check recipients. Thus, in 7 of the 12 counties participating in the demonstration, check recipients were compensated exactly for the sales tax; in the remaining 5 counties, relative to coupon recipients, check recipients experienced a 1 percent reduction in their benefits.

What Is Not Good About Coupons. "Nothing" was the most frequent response of both check and coupon recipients to the question, "What is not good about coupons?" Thirty-four percent of check households and 40 percent of coupon household gave this response (Table VI.4). This pattern held for urban and for rural check and coupon households. Check recipients whose benefit form had been converted from coupons to checks were 7 percentage points more likely than checks-always recipients to find no fault with coupon benefits (35 percent and 28 percent, respectively).

In general, check households and coupon households thought the same features of the coupon issuance system were not good. In addition, urban and rural residents gave substantially the same responses. The feature cited most often as not good about coupons, by 19 percent of check households and by 21 percent of coupon households, is that FSP coupon benefits cannot be used to purchase nonfood items. Check and coupon households also did not like to have to travel to the issuance office to obtain food stamp benefits. Ten percent of check households and 7 percent of coupon households mentioned this feature as one that they disliked about coupon benefits.

The "stigma" experienced by participants when using their benefits to purchase food is another aspect of coupons perceived by check and coupon households as not good. Assuming that responses in the categories "feel embarrassed," "do not feel dignified," and "cause problems at the check-out line" all refer to the stigma of program participation, 7 percent of check households and 6 percent of coupon households mentioned the stigma that they felt when using food stamps as a feature that they disliked about coupon benefits.

2. Indices of Recipients' Attitudes Toward Benefit Checks and Coupons

The household survey did not ask recipients directly which benefit form--checks or coupons--they preferred. However, we used the number of reasons given by a respondent for why checks or coupons are good or are not good to construct two indices, one measuring the respondent's attitudes toward checks, and one measuring the attitudes toward coupons. The indices can be used to provide evidence about whether recipients prefer checks or coupons.

TABLE VI.4

RECIPIENTS' OPINIONS ON WHAT IS NOT GOOD
ABOUT FOOD STAMP PROGRAM COUPONS
(Percentage of Households)

What Is Not Good About Coupons	Check Households			Coupon Households
	Converted to Checks	Checks Always	All Check Households	
Cannot be used for items other than food	19.0	23.1	19.4	21.2
Involve going to issuance office	10.1	6.0	9.6	7.5
Need to stand in line for a long time	5.0	3.0	4.7	3.7
Feel embarrassed	4.1	6.7	4.4	4.8
Have fewer choices of food stores	2.5	2.2	2.5	1.5
Cause problems at the check-out line	1.9	2.2	2.0	1.1
Do not feel dignified	1.4	1.5	1.4	0.7
Are more likely to be stolen	1.2	0.0	1.0	0.4
Do not make sure benefits are spent on food	1.1	0.7	1.0	1.7
Do not budget food expenses well	0.9	0.7	0.9	0.5
Give less control over household budget	0.5	0.7	0.6	0.5
Are difficult to cash	0.5	0.7	0.5	0.0
Have been stolen	0.5	0.0	0.4	0.2
Have been late	0.4	0.0	0.3	0.2
ATPs have been late	0.4	0.0	0.3	0.4
ATPs have been stolen	0.1	0.7	0.2	0.1
Cannot be used to buy alcohol/cigarettes	0.0	0.0	0.0	0.0
Other	3.2	3.7	3.3	3.2
Nothing	35.0	27.6	34.3	40.1
No comment/no opinion	2.3	3.0	2.3	3.0
Refused	1.7	1.5	1.7	1.2
Do not know	9.8	17.9	10.6	7.3
Number of Households	1,111	134	1,255	1,131

SOURCE: Evaluation of the Alabama Food Stamp Cash-Out Demonstration, household survey.

NOTE: Percentages do not sum to 100 percent because respondents could mention more than one thing that they thought was not good about coupon benefits.

Sample sizes of "Converted to Checks" and "Checks Always" households do not sum to sample size of "All Check Households" because the status of ten households could not be determined.

ATP = authorization-to-participate card.

The index of attitudes toward checks is simply the number of reasons cited by a respondent for why checks are good, minus the number of reasons cited for why checks are not good. Therefore, a positive value of the index indicates that the respondent cited more good things than bad things about checks. Conversely, a negative value indicates that the respondent cited more bad things. A respondent who cited an equal number of good and bad aspects of checks would have an index value equal to zero. We used the same procedure to construct the index of attitudes toward coupons. The interpretation of that index is analogous to the interpretation of the check index. To simplify the findings that are based on the indices, we have collapsed their values into three categories: (1) positive, (2) neutral (zero), and (3) negative.

When examining tabulations of these indices, it is important to recognize that we cannot be certain of the degree to which the indices reflect respondents' overall preferences for cash or for coupons. For example, suppose that a respondent noted three advantages of checks, but only one disadvantage. Implicitly, our index assumes that the responses indicate an overall positive attitude toward checks. However, it is possible that the respondent could have viewed the single disadvantage to be so serious as to outweigh the three advantages.

Nevertheless, we believe that the indices provide meaningful information about respondents' attitudes toward checks and coupons. In part, as discussed in the following subsection, we base our belief on the fact that the findings obtained from the indices are broadly consistent with the findings obtained from the focus group discussions.

a. Attitudes of Check Recipients Toward Benefit Checks and Coupons

A majority of check recipients cited more reasons why checks are good than why they are not good. Table VI.5 shows that 59 percent of check recipients cited more reasons why checks are good than reasons why checks are bad, whereas only 13 percent cited more reasons why checks are bad. Twenty-eight percent cited an equal number of good and bad things about checks. Check recipients were less positive toward coupons than toward checks. Forty-nine percent of check recipients cited

TABLE VI.5
INDICES OF RECIPIENTS' ATTITUDES TOWARD CHECKS AND COUPONS
(Percentage of Households)

Scale	Attitudes Toward Checks		Attitudes Toward Coupons	
	Check	Coupon	Check	Coupon
Positive ^a	59.2	33.1	49.0	61.4
Neutral ^b	28.3	37.9	34.9	31.2
Negative ^c	12.5	29.0	16.1	7.4
Total Percent	100.0	100.0	100.0	100.0

SOURCE: Evaluation of the Alabama Food Stamp Cash-Out Demonstration, household survey.

^aPositive attitude means respondent said more good things than bad things about benefit form.

^bNeutral attitude means respondent said equal number of good and bad things about benefit form.

^cNegative attitude means respondent said fewer good things than bad things about benefit form.

more good than bad things about coupons, 35 percent cited an equal number of good and bad things, and 16 percent cited more bad than good things.

Rural check recipients were more likely than urban check recipients to view checks and coupons positively. Sixty-three percent of rural check recipients mentioned more reasons why checks are good than why they are not good, compared with 55 percent of urban check recipients; 52 percent of rural check recipients cited more reasons why coupons are good than why they are bad, compared with 46 percent of urban check recipients (results not shown).

b. Attitudes of Coupon Recipients Toward Benefit Checks and Coupons

As measured by our index, the attitudes of coupon recipients toward checks are much more evenly distributed across the "positive-neutral-negative" categories than are their attitudes toward coupons. Table VI.5 shows that only about one-third of coupon recipients cited more reasons why checks are good than why they are not good; 29 percent cited more reasons why checks are bad than why checks are good; and 38 percent cited an equal number of good and bad things. However, sixty-one percent of coupon households cited more reasons why coupons are good than why they are bad. Thirty-one percent cited an equal number of good and bad things, and only 7 percent cited more bad things.

Rural coupon recipients were more likely than urban coupon recipients to view checks and coupons positively. Thirty-seven percent of rural coupon recipients mentioned more reasons why checks are good than why they are not good, compared with 29 percent of urban coupon recipients; 66 percent of rural coupon recipients cited more reasons why coupons are good than why they are bad, compared with 46 percent of urban check recipients (results not shown).

c. Conclusions

As measured by our index, recipients' relative preferences for checks or for coupons are related to the form of benefit that they were receiving when we conducted the survey. We estimate that

nearly four and one-half times as many check recipients had a net positive attitude toward checks than had a net negative attitude (59 percent versus 13 percent). In addition, our results suggest that check recipients were 10 percentage points more likely to have a net positive attitude toward checks than to have a net positive attitude toward coupons (59 percent versus 49 percent). Although more coupon recipients had a net positive attitude toward checks than had a net negative attitude (33 percent versus 29 percent), the difference is small; moreover, coupon recipients were much more likely to have a net positive attitude toward coupons than to have a net positive attitude toward checks (61 percent versus 33 percent).

When interpreting these results, note that the coupon households had not received FSP benefits in the form of checks.⁷ The lack of direct experience with check benefits might have prevented these respondents from having clearer opinions about check benefits.⁸ Of the check recipients whose benefit form had been converted from coupons and who, therefore, had experience with both forms of issuance, 58 percent had positive attitudes toward checks and 49 percent had positive attitudes toward coupons.

3. Additional Findings from Focus Group Discussions

In the focus groups, we asked recipients who had used both checks and coupons to indicate which benefit form they preferred, and to give the reasons for their preferences. In general, the focus group participants preferred checks to coupons because (1) checks can be used to purchase nonfood items, (2) checks are more convenient to receive, (3) checks engender a feeling of self-respect, (4) checks increase purchasing flexibility and make budgeting and shopping easier, and (5)

⁷Interviewers briefly informed respondents from coupon households about the check-issuance system, so that the respondents could give informed answers about what is good and not good about checks. However, experience using check benefits is a better source of information than is the simple knowledge of the existence of such an issuance system.

⁸Evidence from the survey supports this view. Nineteen percent of coupon households responded "do not know" when asked what is good about checks, compared with 5 percent, when asked what is good about coupons.

checks are typically received earlier in the month than coupons. The major reservation about check benefits concerned the diversion of benefits from food to nonfood items. Some participants expressed trepidation that they, or families with small children, would spend too much of the check allotment on nonfood items.

Many participants preferred checks because they would be able to buy nonfood items, such as soap and paper products. In addition, some recipients liked being able to buy food from places other than retail food stores, such as farmer's markets or fast food restaurants, to which they would be able to take their children. Some examples of what focus group participants said are:

"I like the fact that I can buy more nonfood items like toilet tissue and washing powder and soap. Otherwise, I'd have to do without them and that is almost as essential as food to me." (Birmingham/Elderly)

"It seems like it's a bit easier because you can purchase nonfood items [with checks], but with food stamps you just get food with them." (Fayette/Nonelderly)

"Like on the weekend, you know, we have the kids, you know, we leave church, the kids, they might want to stop by McDonalds. Well, with the stamps we can't go in there and spend them. See, like now, you might stop by McDonalds, stop by Jacks, and you know, take them out some nights to eat. But with stamps you can't do that." (Fayette/Nonelderly)

"A lot of people sell vegetables. Like you see a truck stopped and they're selling watermelons and stuff, you can go ahead and pay cash for it instead of knowing they ain't gonna take the food stamps." (Fayette/Nonelderly)

Many participants also preferred checks to coupons because receiving checks by mail is more convenient and less costly than having to report to food stamp offices in-person to pick up coupons. This preference was particularly true for the elderly, those with no transportation, and those with small children. Focus group participants said:

"Because I'm not able to go to and from, I'm a heart patient. So I like them to send me a check so I don't have to be standing....I had to get the bus. You had to pay to go downtown and then get a transfer back. I always tried to get somebody to take me. I hate to travel alone by myself." (Birmingham/Elderly)

"But the most important thing was that it did come to my mailbox. I cannot drive a car. I don't have a car and it was a, constantly, get somebody to pick them up, get somebody to carry [take] me and I think it was wonderful that it do come to my house." (Fayette/Elderly)

"I was glad because in the cold months having to get my little girl dressed, and myself, and going down and get the stamps....it's better because you don't have to get out of the house, getting dressed just to come down to get the coupons when you can just get it in the mail. So that's a whole lot easier." (Fayette/Nonelderly)

"Also, somebody can go cash your check for you and go get your groceries. She can't go pick up my stamps because, you know, her name's not on them." (Fayette/Nonelderly)

Participants in the focus groups also cited the elimination of the stigma or embarrassment associated with using FSP benefits as a reason for preferring checks to coupons. Recipients reported that the behavior of store personnel and customers improved when the food stamp recipients offered checks as payment, rather than coupons. When recipients paid with checks, they rarely received verbal abuse from customers and store personnel at the checkout counter, because these individuals could not easily ascertain that the FSP had issued the food stamp check. Recipients also reported that they felt greater self-esteem when using checks than when using coupons. Some examples of what participants said about how cash-out eliminated the stigma associated with participation in the FSP, and about how it increased self-esteem are:

"Sometimes, they don't even say thank you [with coupons]. And one time I had, you know, you go in with stamps and the girl had charged me fifty cents more and I told her and she said, 'well, you're getting it free anyway.' When you get the checks, I mean it's different, they treat you different." (Fayette/Nonelderly)

"I had this comment behind me from this lady, 'look at this girl on food stamps and she's getting a roast'....I turned around and said, 'lady, this little roast is gonna take me for 3 or 4 meals. How many meals does it take you?'....That roast, which was \$7.00, lasted...and it was more economical to get that than it would have been to get hamburger meat." (Birmingham/Nonelderly)

"You go up there with a big bag of groceries and you pull them food stamps out, they say, 'no wonder she's got that much groceries, she's getting food stamps'. When you pull the money out, their eyes close up." (Fayette/Nonelderly)

"Mine [preferred reason for getting checks] is for more respecting at the grocery store, you know, the way the cashiers treat you different. People looking at you." (Fayette/Nonelderly)

"I don't feel guilty--everybody has to go up to a cash register, you know--like so many wise cracks about people on food stamps, you know...you can spend money instead of the food stamps. It makes me feel better to be able to do that." (Fayette/Nonelderly)

Although the support for checks was overwhelming, some participants, especially older ones, expressed reservations about giving checks to families with small children. Participants worried that children would be deprived of the food that they would have received had their parents been given coupons. Some participants said that they would be willing to receive coupons instead of checks, despite the personal hardship such a change would cause, if coupons would ensure that small children received enough food. Some examples of what focus group participants said are:

"You mean if we had to choose [between checks and stamps] for everybody? Well, I believe the food stamps would be more benefit on account of there's so many little children wouldn't get anything if they got checks." (Fayette/Elderly)

"That's how I feel. I don't know how you all feel, but, I would be willing to try to get my food stamps, you know, if I could get some for little children. If a family got the big check in money and the little children might get some and they might not. But if they get food stamps, you see...But for myself, I'd rather get my check." (Fayette/Elderly)

B. THE UTILITY OF CHECKS AND COUPONS IN FOOD BUDGETING AND SPENDING

Coupons are an "in-kind" benefit that can be legally redeemed only for eligible food items, whereas check benefits can be legally converted to cash and used to purchase either food or nonfood goods and services. Therefore, converting the form of the benefit from coupons to checks could make it more difficult for recipients to budget their food expenditures, because food stamp benefits are no longer linked directly to the purchase of food.

To assess the impact of cash-out on budgeting food expenditures, we obtained data from both the household survey and the focus group discussions on recipients' relative *perceptions* about the usefulness of checks and coupons in budgeting food expenses. In the household survey, we asked all recipients whether they thought coupon benefits or check benefits were more helpful when

planning and budgeting monthly food expenses.^{9,10} The focus groups with recipients who had used both coupon benefits and check benefits explored the role of checks and coupons in household budgeting more deeply, as well as recipients' perceptions about the relative utility of checks and coupons when planning and budgeting the household's monthly food expenses. The first section describes the findings on budgeting food expenses that are based on the household survey, and the second describes the findings that are based on the focus group discussions.

To summarize the results, in the household survey, a slim majority of check recipients and the vast majority of coupon recipients agreed with the statement that "food stamps are more helpful than checks in planning and budgeting the household's monthly food expenses." However, the majority of focus group participants who had received both benefit forms preferred checks when budgeting food expenses. Most of the participants in the focus groups believed that budgeting household expenditures, including those for food, or household resources was easier with benefit checks than with coupons. The major reason that focus group participants preferred checks to coupons when budgeting expenditures was that recipients felt they were better shoppers with check benefits than

⁹Respondents were asked whether they strongly agreed, agreed, disagreed, or strongly disagreed with the following statement: "Food stamp coupons are more helpful than food checks in planning and budgeting the household's monthly food expenses." All respondents to the household survey were asked this question, irrespective of whether they received checks or coupons. Respondents who did not receive check benefits were briefly informed about the check-issuance system. However, we believe that, as an information source, experience with check benefits is better than knowledge of the existence of such an issuance system. (An examination of the percentage of check and coupon households responding "don't know" to this question supports this belief, as coupon households were twice as likely as check households to respond "don't know.") Therefore, we focus our discussion on the responses to this question by check recipients who had formerly received coupon benefits.

¹⁰All household survey respondents were also asked whether they strongly agreed, agreed, disagreed, or strongly disagreed with the statement: "Food stamp coupons give more control than a food check over the household's food spending." However, we believe there to be sufficient ambiguity in the meaning that respondents might have applied to the word "control" to cast doubt on the question's validity. Some households might have thought in terms of "federal government" control over the household's food expenses, because the question does not define *who* has more control. The ambiguity could have been avoided if "give more control" had read "give *the household* more control." For this reason, the discussion in Section VI.B.1 focuses on the responses to the question about budgeting the household's monthly food expenses.

with coupons. Recipients felt that they were more likely to make economical purchases with checks than with coupons, and that this freed up resources for nonfood expenditures.

1. Household Survey Findings on Budgeting Food Expenses

Both check and coupon recipients believed that it was easier to budget food expenses with coupons than with checks; however, a substantially smaller percentage of check recipients than coupon recipients held this opinion. Fifty-two percent of check households either strongly agreed or agreed with the statement that "food stamp coupons are more helpful in planning and budgeting the household's monthly food expenses," compared with 79 percent of coupon households (Table VI.6). Urban check households were slightly more likely than rural check households to have this opinion; 57 percent of urban check households either strongly agreed or agreed with the statement, compared with 49 percent of rural check households (results not shown).

None of the coupon households in our sample had actual experience budgeting food expenditures with check benefits. In addition, check households who were first-time participants in the FSP lacked experience with coupons. Thus, we can appraise recipients' relative preferences for checks or coupons in planning and budgeting food expenditures more accurately by examining the responses of the subgroup of check households that had formerly received coupon benefits. Table V.6 shows that, as with all check households, a slight majority of recipients who had experience with both benefit forms believed that food expenditures are more easily budgeted with coupons than with checks; 53 percent strongly agreed or agreed with the statement.

2. Additional Findings from the Focus Group Discussions on Budgeting Food Expenses

In the focus group discussions with recipients who had received both check and coupon benefits, we asked participants to discuss the relative utility of checks and coupons in budgeting household expenditures. We first asked participants to compare their actions after receiving benefit checks

TABLE VI.6

ATTITUDES ABOUT THE ROLE OF CHECKS VERSUS COUPONS
IN FOOD BUDGETING AND SPENDING
(Percentage of Households)

Attitude	Check Households				Coupon Households
	Converted to Coupons	Checks Always	All Check Households		
Food Stamp Coupons Are More Helpful in Planning and Budgeting the Household's Monthly Food Expenses					
Strongly agree	19.3	15.7	19.2	31.7	} 79.4
Agree	33.5 } 52.8	27.8 } 43.5	33.0 } 52.2	47.7	
Disagree	39.7	44.4	39.9	17.6	} 20.7
Strongly disagree	7.5 } 47.2	12.0 } 56.4	7.9 } 47.8	3.1	
Sample Size	1,027	108	1,144	982	

SOURCE: Evaluation of the Alabama Food Stamp Cash-Out Demonstration, household survey.

NOTE: Percentages were computed on the basis of only those households that expressed an opinion.

Sample sizes of "Converted to Checks" and "Checks Always" households do not sum to sample size of "All Check Households" because the status of nine households could not be determined.

(including how they decide what to do with the money, and who makes the decisions) with those after receiving benefit coupons. We then asked whether it was easier to budget the household's food expenditures with checks or coupons, and why.

The concept of household budgeting generated lively discussion among the participants. One group indicated that the concept was ludicrous, because FSP recipients, who do not have enough income to meet their needs, can only do their best to try to make ends meet. Another group reported buying certain items every week, so that it would not matter whether coupons or checks were used. A third group, comprised mostly of younger recipients, stated that budgeting was definitely done differently with checks than with coupons. These recipients felt that, with checks, they were more aware of making wise purchases in order to stretch their money further. With checks, they were more cognizant of price differences between name brands and generic products. They were more likely to select products that gave them good value for the money. Nonelderly focus group participants said:

"The way I look at it is when you have the coupons you have to get food and so that's why you go in the store and get anything you want, no matter how much it costs, because you have to get food. With the check, it's the temptation of knowing you can get something cheap and you might have extra money left over." (Fayette/Nonelderly)

"Well, to me it's just natural. You hold onto a dollar bill more than you hold onto a dollar coupon....You just treat money different....if something costs \$10.00 you're gonna say 'well, I've got some stamps, I'll use them'. You make more wiser decisions with money. If these pork chops cost this much and these lamb chops are cheaper, I'm gonna get the cheaper ones. You make wiser decisions." (Fayette/Nonelderly)

"When I had the food stamps, the coupons, I go in the store and everything I see my kids want. I really didn't worry about the prices, I wasn't too particular about that. Now with the check, I look for the cheapest stuff to make my money last a long time. I used to go in there and get anything I see." (Fayette/Nonelderly)

"Whatever they got on sale I usually get. Everything I got or buy is generic. I try to make it last, you know, if you buy the cheaper brand you get more. If any of my brothers are over, or something, I can rely on them to go into Tuscaloosa, or somewhere. I'll ride with them and the food over there and stuff is a lot cheaper than what it is around here." (Fayette/Nonelderly)

All of the women in the rural and urban groups made the food-purchasing decisions in their households under both the check- and coupon-issuance systems, even those who were part of a male-female couple. Some of the women observed that they were able to have other family members, including children, cash their checks and shop for them, which they were unable to do with food coupons. An example of what focus group participants said was:

"In my house, even though every check that comes into my house is in my husband's name, I sign his name, I sign my name, I pay the rent, I pay all the bills. I do everything and I slip, like \$10 a week in his allowance, that's it!" (Birmingham/Nonelderly)

In general, participants felt confident of their ability to handle money and did not think that training on household budgeting would be beneficial. Most of them knew how to get a lot of mileage from their funds, apparently as a result of their lack of discretionary income. Food stamp recipients do not have a lot of choices. They know what their financial obligations are, they know what income is available, and they know that there is not much, if anything, left over, after necessities have been purchased.

"It's like I was saying, my budget is in my head. I know what I've got coming in and I can't go over that." (Birmingham/Elderly)

"I don't get extravagant. Sometimes I think, hey, I got half a tube of toothpaste at home, let me try to stretch it. And now since I've got that check, I might buy that tube of toothpaste. That's what I'm saying is the difference. I might buy that tube of toothpaste even though I have half a tube of it. That's about the only variance." (Birmingham/Elderly)

However, even those who supplemented their food stamp benefits with money that they obtained from other sources experienced difficulty making food, or money to buy food, last for the entire month. With checks, a few participants shopped more frequently for smaller quantities of food, rather than shopping once at the beginning of the month. Others continued to purchase most of their food at one time, because it was easier to budget the money with that method. However,

regardless of which shopping method was used, most stated that they did not have enough food, or money to buy food, at the end of the month. Focus group participants said:

"I tried spending it separately, week by week...it was worse than doing it [shopping] all at the beginning of the month...trying to divide it up and seeing the money disappear. [If] my kids' got to go to the doctors and I got to get gas in my car to take them there, I've got to do it. It's either put \$5.00 worth of gas in my car, or spend \$50.00 for an ambulance." (Birmingham/Nonelderly)

"When it gets close to the end of the month, the food starts running out. It runs out when I'm getting checks and it runs out when I'm getting food stamps. At the end of the month, you compare your food and you're getting down to the end. Like right now." (Fayette/Nonelderly)

"I'm the head of the household...I have to do all the shopping, but when I got stamps, I'd go and buy it all at one time. I guess so I wouldn't have to go and put up with it [rude comments]. And it would run out...we started getting short about a week or so before the end of the month, I got two kids and all. To me with the check, it lasts longer, I don't know why. You know I buy it by the week instead of spending it all at one time. If I bought it all, I'd probably eat it all." (Fayette/Nonelderly)

A few participants mentioned an aspect of check benefits that indirectly affects food budgeting because it can affect the proportion of the household's budget that will be available to buy food. These participants mentioned that check benefits might give their landlords the impression that they have more discretionary income than they actually had, and that the landlords might, therefore, raise the rent. Most participants had not had direct experience with this experience, but speculated that it could be a problem. Focus group participants said:

"Because you can't tell unless you look real good that you got a food stamp check. Which, where I stay at, my manager is gonna try to charge me rent. I said no, this is my food stamp check. This is food. I said you don't get this." (Birmingham/Elderly)

"My landlord don't know about the check and if they find out they're gonna try and charge me extra rent." (Fayette/Elderly)

"I told her [landlord] what it was and everything and she said she couldn't mess with it, but if it wasn't for it being a food stamp check she would have cashed it." (Fayette/Nonelderly)

"Or you got the guy knocking on the door asking you for the rent and there you got the food stamp check laying on the coffee table, what are you going to do? I'd give it to him. Give the whole thing to him." (Birmingham/Nonelderly)

C. CHECK-CASHING EXPERIENCES OF CHECK RECIPIENTS

In the household survey, we asked check recipients about the types of establishments at which they usually cashed their checks, the amount of the check-cashing fee, if any, and any problems or inconveniences experienced when using check benefits. In the focus group discussions, we examined these issues, as well as the impact of check-cashing problems on recipients' future participation in the FSP.

Section VI.C.1 describes the findings from the household survey and the focus group discussions on the establishments at which checks were usually cashed. Section VI.C.2 describes the findings from the household survey on fees paid by recipients to cash their benefit checks. Section V.C.3 discusses check-cashing problems cited in the survey and in the focus group discussions.

To summarize the findings, check households typically cashed their benefit checks at retail food stores or banks. Less than 10 percent of check households paid a fee to cash their benefit checks, and the majority of households that did pay a fee paid \$1.00 or less. Relatively few check recipients (less than 10 percent) mentioned encountering significant problems when cashing or using their checks. Although the incidence of problems was rare, the most frequently cited ones included difficulties cashing benefit checks because of an improper ID or an insufficient number of IDs, limits imposed by retail stores on the amounts of the checks cashed, retail stores having insufficient funds to cover the benefit checks, and stores refusing to cash benefit checks. The focus group discussions suggest that the problems experienced when recipients cashed food benefit checks were similar to the ones experienced when recipients attempted to cash payroll or other checks.

1. Establishments Where Food Benefit Checks Usually Are Cashed

Most check recipients cashed their benefit checks at retail food stores or banks. A majority (73 percent) of check recipients reported that they usually cashed their food benefit checks at retail food stores (Table VI.7); 23 percent of check recipients usually cashed their benefit check at banks. Less than one-half of one percent cashed their checks at check-cashing outlets. Rural check households

TABLE VI.7
CHECK-CASHING EXPERIENCES OF CHECK RECIPIENTS
(Percentage of Check Households)

All Check Households	
Place Where Check Is Usually Cashed	
Supermarket or grocery store	69.9
Other food store	3.4
Nonfood store	2.1
Bank	22.5
Deposit in bank	0.9
Check-cashing outlet	0.3
Other	0.9
Was Purchase Required to Cash Check?^a	
Yes	31.1
No	68.9
Was a Fee Charged to Cash Check?	
Yes	9.2
No	90.8
Fee Paid to Have Check Cashed^b	
\$0.25 or less	3.4
\$0.26 to \$0.50	22.4
\$0.51 to \$1.00	31.0
\$1.01 to \$2.00	25.9
\$2.01 to \$5.00	12.9
\$5.01 or more	4.3
Mean Fee^b	\$1.67
Median Fee^b	\$1.00
Sample Size	1,255

SOURCE: Evaluation of the Alabama Food Stamp Cash-Out Demonstration, household survey.

^aIncludes only households that cashed checks at retail stores (N = 939).

^bThe statistics given in these sections of the table are based on the fee amounts that were reported by the 116 households that reported paying a fee to cash their food stamp checks.

were 9 percentage points more likely than urban check households to cash their benefit checks at banks (27 percent versus 18 percent; Appendix Table J.9).

2. Check-Cashing Fees

Very few check households (9 percent) paid a fee to cash their benefit checks (Table VI.7). Urban check households were five times more likely than rural households to pay a fee to cash their benefit check (16 percent versus 3 percent; Appendix Table J.9).

Most of the check households that paid a fee reported that it was relatively small. Fifty-seven percent reported paying \$1.00 or less; only 17 percent of check households that paid a check-cashing fee paid more than \$2.00 (Table VI.7). The average fee for those that paid a fee was \$1.67 (the median fee was \$1.00). To place this amount in context, check recipients who responded to the household survey received an average food stamp benefit of \$169 per month. Thus, a \$1.00 check-cashing fee reduced available benefits by about one-half of one percent of the face value of the benefit check.¹¹

Although the vast majority of check households that usually cashed their benefit checks at retail stores did not have to pay a check-cashing fee, retail stores often required recipients to make a purchase in order to cash their benefit checks. Thirty-one percent of households that cashed their benefit checks at retail stores reported having to make a purchase (Table VI.7). Urban check households that cashed checks at retail stores were nearly twice as likely as rural households to be required to make a purchase in order to cash their benefit checks (39 percent versus 23 percent; Appendix Table J.9).

¹¹For purposes of comparison, a recent government report (U.S. General Accounting Office, 1988) indicates that fees for cashing government checks range from no charge to 25 percent of the face value of the check, and that the average fee paid on a \$500 check was \$8.50, or 1.7 percent of the face value.

3. Problems Cashing Benefit Checks

Very few check recipients (9 percent) reported having any problems when cashing checks (Table VI.8). Problems that were mentioned included: recipients not having the proper ID or a sufficient number of IDs to cash the benefit check (4 percent), the store limiting the amount of the check that it would cash (1 percent), the store refusing to cash the check (1 percent), and stores having insufficient funds to cash the checks (1 percent). Urban check households were more likely than rural check households to experience check-cashing problems (11 percent versus 7 percent; results not shown).

The discussion of check-cashing experiences in the focus groups did not reveal serious problems. Participants were able to cash food stamp benefit checks with relative ease. Many participants noted that cashing a food stamp benefit check is no different than cashing any other check. They had the same experiences when cashing a payroll check, social security check, or Aid to Families with Dependent Children benefit check. No participants mentioned any problems serious enough to cause them to leave the FSP, nor did they know of anyone who had had such an experience. This sentiment is captured in the following comment by a focus group participant, who said:

"They cash it like they would any other check. They don't say anything. I had one lady at the same grocery store that I've always went to, she thought it was an income tax check. She said, 'did you get it late?'" (Birmingham/Nonelderly)

D. TIME AND MONEY COSTS OF PARTICIPATION

Recipients incur time and money costs participating in the FSP. Some of these costs are specifically related to the issuance system, including the costs of obtaining benefits and the costs of dealing with any problems relating to the receipt and use of benefits, such as the cost of lost or delayed benefits. We asked focus group participants to discuss the time and money costs of obtaining and using benefits and the losses from lost or stolen benefits when using coupon and check benefits,

TABLE VI.8
CHECK-CASHING PROBLEMS EXPERIENCED BY CHECK HOUSEHOLDS
(Percentage of Check Households)

Problem	All Check Households
None	91.5
Improper or Insufficient ID	4.2
Store Refused to Cash Check	1.4
Store Did not Have Enough Money to Cash Check	1.1
Limit on Amount of Check that Store Will Cash Without Purchase	0.8
Store Gave Credit Rather than Cash for Check	0.3
Other	2.1
Sample Size	1,255

SOURCE: Evaluation of the Alabama Food Stamp Cash-Out Demonstration, household survey.

NOTE: Percentages do not sum to 100 percent because respondents could mention more than one check-cashing problem.

and then to state which form of benefit--checks or coupons--they thought required less time and money to participate in the program.

In this section, we present findings from the focus group discussions on the time and money costs of participating in the FSP in Alabama under the coupon- and check-issuance systems. From their own personal perspectives, most of the focus group participants thought checks were more cost-effective than coupons to use. They felt that the time and money costs of program participation were lower because the monthly trip to pick up benefits was eliminated, and because benefits were less likely to be lost or stolen.

1. Costs to Receive or Replace Benefits

In Alabama, coupons are typically issued over-the-counter. Because the recipient must travel to the food stamp office to pick up the coupons, both money and time are spent in the process. Recipients incur transportation costs, by putting gas in their cars, buying bus tokens, or paying a neighbor, friend, or relative to take them to the food stamp office. Not surprisingly, the most frequently cited drawback to the use of coupons was the inconvenience of picking them up in-person at the food stamp office. Focus group participants said:

"I went over there [to the food stamp office] at about 8:00 that morning and I didn't leave from over there till about 4:30...and they didn't fix the computers until after I had left." (Birmingham/Nonelderly)

"It used to be 15 miles for me before I moved in town." (Fayette/Nonelderly)

"You been there for hours. If you got somebody waiting for you they ain't gonna want to just keep waiting." (Fayette/Nonelderly)

"It could be \$3 or \$4 just to take you to town. Or if you use your own car, you still have to put \$2 or \$3 worth of gas in the car to go anyway, so." (Fayette/Nonelderly)

"And then they only have but one lady that works in there." (Fayette/Nonelderly)

Only a small number of participants had ever had their food stamp coupons lost or stolen. Those who had had either experience cited the inability to receive replacement coupons as a disadvantage of using coupons. Focus group participants said:

"I had my purse ripped off...two big guys cut it off my right arm and ran...I just took out my stamps that day. They [the food stamp office] wouldn't replace them. They acted like no big deal, it didn't matter if you have no food in your house. You end up waiting until next time." (Birmingham/Nonelderly)

"One time...when they was coming through the mail, sending them, mine got stolen. I went down to the welfare office and told them. They took me over to the jail to sign a warrant, I guess, for whoever done it...In a week they did, they gave me some more." (Fayette/Nonelderly)

"I heard about a bunch of peoples' that did get stolen. People expect them, about the time they're supposed to come, people would be there to check the mail. I was always be there waiting to get mine because I thought they was coming." (Fayette/Nonelderly)

Some participants in Fayette County expressed annoyance that the food stamp office would not replace marred or damaged coupons, because they often had difficulty redeeming those coupons in grocery stores. Participants from Birmingham seemed to have more success obtaining replacement coupons. Focus group participants said:

"And another thing, when you leave stuff in your pocket, food stamps, and they mess up more when they get washed in the washer than money. Because food stamps, I have had them to tear up, you know, in your pocket. You take them down there [the food stamp office], they can tell how much it was but they told me they wouldn't give me any back. They could tell what it was and they couldn't give them back to me. You know, money don't tear up that fast." (Fayette/Nonelderly)

"I know my baby one time, when he was real little, he tore up some of my stamps....But they know what it is. They seen, you know, it was three tens. They could tell what it was. They didn't give me any more. I mean you could tell it was in little pieces, it was awful tore up and ragged up and they wouldn't take it in the grocery store. They won't take them." (Fayette/Nonelderly)

No one in the focus groups had lost their food stamp checks or had had them stolen, nor did they know of any one who had had these experiences. The respondents speculated that if they were

to encounter this type of problem, they would report it to the food stamp office and get a replacement check.

A few participants had experienced delays in the arrival of their benefit checks and were afraid that the check had been stolen from their mail boxes or had been lost in the mail. In most cases, the checks arrived within a few days, although one participant reported a longer delay. One focus group participant said:

"They put the wrong address. Instead of putting Fayette, they put Winnfield, down there at the food stamp office. Well, I called and they never would tell me, they never would tell me. Finally, I called up there and I gave them [my address]. They said it's Winnfield, I say 'no ma'am, it's Fayette, Alabama.' Well, that made the check go back to Montgomery, see, we didn't get it until the 15th or 16th, so that left us, I mean we was kind of dragging the bucket. They used to mail it out on the first of the month, so we should have gotten it no later than the fourth." (Fayette/Nonelderly)

2. Costs to Use Benefits

Time Spent at the Checkout Counter. Whether coupons or checks are used, the shopping experience was comparable in terms of time spent at the checkout counter. Opinions varied as to whether the benefit form affected checkout time. Some participants thought that the amount of time required to get check-cashing approval was comparable to the amount of time used by the cashier to pull the food stamp coupons out of the book. A few thought that using coupons might be a little more time-consuming. Some participants used manufacturers' cents-off coupons, irrespective of whether they shopped with food stamp coupons or checks, so that the checkout process was somewhat time-consuming in either case. Some examples of what focus group participants said are:

"It's the same. It's just like paying the grocery man with a personal check. It's about the same because the registers they got now is efficient. The registers, they will separate the food items from the nonfood items. Even if you're using coupons, you still get through the line in about the same time." (Birmingham/Elderly)

"Well, a lot of times when they're gonna give you change, they have to dig down to the bottom of the drawer. They have to reach under there and if they ain't got enough ones [coupons], then they have to run on down to another cash register and you have to stand there waiting until they get back with them." (Fayette/Elderly)

Ease of Coupon Redemption. For the most part, participants shopped in the same stores regardless of whether they received checks or coupons. Although some participants mentioned knowing of stores that would not accept food stamp coupons, most members of the focus groups had not had direct experience with this problem. This inability to redeem coupons appeared to be a larger problem in the smaller stores in Fayette County. Focus group participants said:

"You [the stores] have to be certified to take them. A lot of small ones, I never run into a large store that wouldn't take them. Like a small corner market or a small fruit stand, like some of them wouldn't take them because they weren't certified by the food stamp people to take them." (Fayette/Elderly)

"There was a store in Winnfield that had gas pumps and they caught them selling gas for food stamps and they stopped them from taking all food stamps. So, there's different reasons why they can't accept them." (Fayette/Elderly)

"Well, you have to go mostly to the big grocery stores, because....there's a store toward Winnfield, they don't take food stamps. If you want to get a snack or something, they don't take them." (Fayette/Nonelderly)

Reactions from Store Personnel and Customers. "Stigma" can be viewed as a cost of participating in the FSP. As discussed previously in Section VI.A.3, overall, the behavior of store personnel and other customers improved when the food stamp recipients offered checks rather than coupons as payment. One participant mentioned that the store personnel were usually courteous, but that store patrons often made rude remarks about the quantity or quality of the food in the recipients' baskets when coupons were used as payment. When recipients paid with checks, they reported being treated the same as any other customer and reported a decrease in the verbal abuse they sustained while waiting in the checkout line, because it was difficult for other patrons and store personnel to ascertain the food stamp check's issuer.

Sales Tax. With respect to the sales tax levied on food and other grocery store items, most focus group participants recognized that their benefits had been adjusted upward by an amount equal to the sales tax that they now had to pay. Most of them considered themselves to be appropriately compensated for the tax, but others were unsure why they had to pay the tax and were not quite

convinced that they were not losing money with the new arrangement. Still others observed that they had occasionally been incorrectly charged a tax when paying with coupons. Focus group participants said:

"When they figured out how many stamps you was gonna get, they are like, when they gave you the check, they already know how much you was supposed to draw and what they did is they added that extra on to make up for the taxes that you would have to pay per dollar on to it. Seven percent taxable." (Fayette/Nonelderly)

"I used to tell them [store clerks] about it [sales tax on coupon purchases] and they'd say 'well, it's in the register now. I can't do nothing about it. You should have told me you was gonna use stamps, you know'. I was gonna turn them in, but I didn't." (Fayette/Elderly)

"And there's still some convenience stores here that charge you tax. And you tell them they're not supposed to on the coupons and they still tax you....and I called the food stamp office and they said there wasn't nothing really they could do about it." (Fayette/Elderly)

E. ATTITUDES ABOUT PROGRAM PARTICIPATION

In the household survey, we asked check households that had always received their benefits in the form of checks about the incentives provided by check benefits to apply for and remain in the FSP. All of these recipients were asked: "Would the household stay in the program if your benefits are switched from checks to coupons?" A subset of these check recipients, who had known when they applied for FSP benefits that benefits were available as food checks, were asked: "Would your household have participated in the FSP if the benefit was not in the form of a check?"

Ninety-seven percent of the recipients who had always received checks responded that they would continue to participate in the FSP if their benefit form were to be converted to coupons (Table VI.9). All of these recipients reported that they would have applied for program benefits even if the check form had not been available. Thus, although households that had always received benefits as checks might have preferred checks to coupons, in the absence of cash-out, they would have applied for benefits initially and would have participated in the program.

In the focus group discussions, some participants mentioned that they knew of eligible nonparticipating households that would probably participate if coupon benefits were replaced by

TABLE VI.9

PERCEPTIONS OF THE IMPACT OF CASH-OUT ON PARTICIPATION
IN THE FOOD STAMP PROGRAM
(Percentage of Checks-Always Households)

Participation Measure	Percentage
Would Household Stay in the FSP if Benefits Switched to Coupons? ^a	
Yes	97.7
No	2.3
Would Households Have Participated if Benefit in the Form of Checks Had Not Been Available? ^b	
Yes	100.0
No	0.0

SOURCE: Evaluation of the Alabama Food Stamp Cash-Out Demonstration, household survey.

^aSample size = 130.

^bSample size = 36.

FSP = Food Stamp Program.

check benefits. Generally, they said that these persons were eligible for modest benefit amounts, in the range of \$20 to \$30, but that they did not participate in the FSP because of the time and money costs involved in picking up benefits from the issuance office. This sentiment is captured in the following comment by a focus group participant, who said:

"Yeah, I know a couple of people that could probably get benefits, they wouldn't get much, maybe \$20 or \$25, but they won't go get them because it's only that small amount of stamps and if they could get a check they would probably go sign up for the check knowing it was going to be mailed to the house. Because they feel like \$20 or \$25 ain't enough to go bother driving in and spending gas, or like a lot of these ladies said, you have to pay somebody \$5 to go take them in to get them and you take \$5 off and you haven't got much left."
(Fayette/Nonelderly)

VII. COMPARISONS OF FINDINGS ON RECIPIENT IMPACTS FROM THE EVALUATIONS OF THE ALABAMA AND SAN DIEGO CASH-OUT DEMONSTRATIONS

In this chapter, we highlight key comparisons between the findings from the evaluations of the *pure* food stamp cash-out demonstrations in Alabama and San Diego County. We also advance hypotheses about why many of the findings from the two demonstration sites differ. When assessing the implications of the findings discussed in this chapter, it is important to note that evaluations of food stamp cash-out *in the context of welfare reform* are being conducted in the states of Washington and Alabama. To fully assess the cash-out approach to the issuance of food stamp benefits, it will be important to consider the findings from the latter evaluations.

A. COMPARISONS OF THE FINDINGS FROM ALABAMA AND SAN DIEGO

We begin this section by comparing findings on the effects of cash-out in Alabama and San Diego that are based on the detailed food-use data that were collected during the household surveys. We then expand the discussion to include comparisons made on the basis of other components of the survey data, including nonfood expenditures and recipients' attitudes toward and experiences with cash-out. Several tables in this chapter recapitulate and bring together key findings from earlier chapters in this report and from the final report on the evaluation of the San Diego Food Stamp Cash-Out Demonstration (Ohls et al., 1992).

1. The Money Value of Food Used and the Availability of Food Energy

Changes in food-use behavior in Alabama and San Diego as a consequence of cash-out are displayed in Table VII.1. This table shows that food stamp households in Alabama responded differently to cash-out than did their counterparts in San Diego. The recipients of food stamp checks in Alabama made very few statistically significant changes in their use of food. Most notably, they

TABLE VII.1

COMPARISON OF CASH-OUT EFFECTS ON SELECTED MEASURES OF
HOUSEHOLD FOOD USE IN SAN DIEGO AND ALABAMA

Measure of Food Use	Mean Value		Difference in Means		
	Check	Coupon	Absolute	Percentage	t-Statistic
Money Value of Food Used at Home per ENU					
Purchased Food					
San Diego	33.28	35.70	-2.42	-6.78	2.45 ^{††}
Alabama	33.43	33.66	-0.23	-0.68	0.31
All Food					
San Diego	35.95	37.63	-1.68	-4.46	1.62 [†]
Alabama	36.25	36.41	-0.16	-0.44	0.21
Food Energy Availability per ENU					
Average Availability of Food Energy (percent of RDA)					
San Diego	133.58	140.00	-6.42	-4.59	1.76 ^{††}
Alabama	162.19	161.46	0.73	0.45	0.22
Percent of Households Meeting or Exceeding RDA for Food Energy					
San Diego	68.75	74.09	-5.34	-7.21	1.94 ^{††}
Alabama	79.65	79.81	-0.16	-0.20	0.10
Sample Size					
San Diego	542	536			
Alabama	1,209	1,080			

SOURCE: Evaluations of the San Diego and Alabama Food Stamp Cash-Out Demonstrations, household surveys (weighted tabulations for San Diego).

NOTE: One-tailed statistical tests for lower money value of food used at home and lower availability of food energy among check recipients were performed on the check-coupon differences shown in this table.

ENU = equivalent nutrition unit, RDA = recommended dietary allowance.

[†]Statistically significant at the 90 percent confidence level, one-tailed test.

^{††}Statistically significant at the 95 percent confidence level, one-tailed test.

did not alter their food-use behavior in ways that reduced either the money value of the food that they used or the availability of food energy.

In San Diego, food stamp cash-out resulted in reductions of 4 percent to 7 percent in the money value of food used at home and in the availability of food energy (Table VII.1). In addition, the percentage of food stamp households that used food providing energy in amounts that equalled or exceeded the recommended dietary allowance was 5 points lower among check recipients than among coupon recipients. All of these differences are statistically significant at conventional levels of statistical precision.

2. The Availability of Micronutrients

When we consider seven micronutrients that are potentially problematic from a public health perspective, we find some negative effects of cash-out on nutrient availability in San Diego, but no negative effects in Alabama. Our estimates for San Diego show that cash-out resulted in statistically significant reductions of 4 percent in the availability of vitamin B₆ and calcium (Table VII.2). In contrast, our estimates for Alabama show that cash-out did not result in significant reductions in the availability of any of the seven micronutrients. The Alabama estimates of the effects of cash-out on the availability of these nutrients are all smaller than the corresponding San Diego estimates, and they are inconsistent in sign.

3. Sources of Food Energy

A potentially beneficial effect of cash-out in San Diego was a shift of 1 percentage point away from fat and to carbohydrate as a source of food energy (Table VII.3). Despite this shift, check recipients in San Diego are far from achieving the dietary guideline of obtaining no more than 30 percent of food energy from fat. Food stamp households in Alabama are even farther from achieving that guideline; both check recipients and coupon recipients obtain about 43 percent of their food energy from fat. Among urban households in Alabama, cash-out induced a shift away from fat and

TABLE VII.2

COMPARISON OF CASH-OUT EFFECTS ON MICRONUTRIENT AVAILABILITY
PER ENU IN SAN DIEGO AND ALABAMA
(Percentage of RDA)

Nutrient	Mean Value		Difference in Means		
	Check	Coupon	Absolute	Percentage	t-Statistic
Vitamin A					
San Diego	210.92	214.40	-3.48	-1.63	0.38
Alabama	227.32	229.71	-2.39	-1.04	0.26
Vitamin C					
San Diego	265.51	276.14	-10.63	-3.85	0.75
Alabama	250.63	255.40	-4.77	-1.87	0.60
Vitamin B ₆					
San Diego	154.96	161.56	-6.60	-4.08	1.38 [†]
Alabama	157.59	157.30	0.29	0.19	0.09
Folate					
San Diego	225.38	230.54	-5.16	-2.24	0.54
Alabama	223.94	221.69	2.25	1.02	0.39
Calcium					
San Diego	118.25	123.72	-5.47	-4.42	1.36 [†]
Alabama	121.34	117.61	3.73	3.18	1.23
Iron					
San Diego	163.43	160.61	2.82	1.76	0.49
Alabama	183.99	183.87	0.12	0.06	0.02
Zinc					
San Diego	119.60	123.73	-4.13	-3.33	1.21
Alabama	127.28	128.87	-1.59	-1.23	0.56
Sample Size					
San Diego	542	536			
Alabama	1,209	1,080			

SOURCE: Evaluations of the San Diego and Alabama Food Stamp Cash-Out Demonstrations, household surveys (weighted tabulations for San Diego).

NOTE: Nutrient availability from food used at home is given per equivalent nutrition unit (ENU), which is defined as the number of equivalent adult males eating all of their weekly meals from the household food supply.

One-tailed statistical tests for lower availability of nutrients among check recipients were performed on the check-coupon differences shown in this table.

RDA = recommended dietary allowance.

[†]Statistically significant at the 90 percent confidence level, one-tailed test.

TABLE VII.3

COMPARISON OF CASH-OUT EFFECTS ON THE PERCENT OF FOOD ENERGY
OBTAINED FROM PROTEIN, FAT, AND CARBOHYDRATE

Source of Food Energy	Mean Value		Difference in Means		
	Check	Coupon	Absolute	Percentage	t-Statistic
San Diego					
Protein	14.89	14.85	0.04	0.27	0.20
Fat	37.76	38.79	-1.03	-2.66	2.04 **
Carbohydrate	47.35	46.36	0.99	2.14	1.76 *
Alabama					
All Food Stamp Households					
Protein	14.18	14.20	-0.02	-0.14	0.15
Fat	42.42	42.96	-0.54	-1.28	1.53
Carbohydrate	43.40	42.84	0.56	1.33	1.45
Urban Food Stamp Households					
Protein	14.85	14.95	-0.10	-0.67	0.51
Fat	42.41	43.48	-1.07	-2.48	2.06 **
Carbohydrate	42.75	41.57	1.18	2.84	2.02 **
Rural Food Stamp Households					
Protein	13.56	13.54	0.02	0.15	0.10
Fat	42.42	42.50	-0.08	-0.19	-0.16
Carbohydrate	44.02	43.96	0.06	0.14	0.11
Sample Size					
San Diego	542	536			
Alabama					
All	1,209	1,080			
Urban	583	506			
Rural	626	574			

SOURCE: Evaluations of the San Diego and Alabama Food Stamp Cash-Out Demonstrations, household surveys (weighted tabulations for San Diego).

NOTE: Two-tailed statistical tests were performed on the check-coupon differences shown in this table.

*Statistically significant at the 90 percent confidence level, two-tailed test.

**Statistically significant at the 95 percent confidence level, two-tailed test.

to carbohydrate of the same magnitude as in San Diego; however, no such shift occurred among rural households. The absence of a shift among rural households dampened the effect of cash-out on the sources of food energy among all food stamp households in Alabama and caused it to be insignificant at conventional levels of statistical precision.

4. Perceptions of Food Adequacy

Objective measures of household food use and nutrient availability reveal a number of small, but statistically significant, negative effects of cash-out in San Diego; however, they reveal no negative effects in Alabama. In contrast, subjective measures of the adequacy of the home food supply reveal no negative effects of cash-out in either demonstration site. According to the three subjective measures shown in Table VII.4, respondents to the household survey in San Diego were substantially more likely than those in Alabama to perceive their home food supplies to be inadequate; however, no evidence from either site shows that check recipients were more likely than coupon recipients to perceive their home food supplies to be inadequate. In fact, check recipients were somewhat less likely than coupon recipients to report not having enough food, going entire days without food or the resources to buy food, and skipping meals because of inadequate food.

5. Food and Nonfood Expenditure Shares

We combined the survey measure of expenditures for food used away from home and the measure of the money value of purchased food used at home to obtain a measure of total expenditures for food. We used the latter measure and its two components, along with measures of expenditures in nine broad, nonfood consumption categories, in order to analyze the effects of cash-out on the shares of total consumption expenditures allocated to a total of eleven food and nonfood consumption categories. Table VII.5 summarizes our findings from San Diego and Alabama for four key consumption categories.

TABLE VII.4

COMPARISON OF CASH-OUT EFFECTS ON RECIPIENTS' PERCEPTIONS
OF ADEQUACY OF HOUSEHOLD FOOD SUPPLY
(Percentage of Households)

	Percentage		Difference in Percentages		
	Check	Coupon	Absolute	Percentage	t-Statistic
Sometimes or Often not Enough Food During Past Month					
San Diego	26.88	30.90	-4.02	-13.01	1.50
Alabama	16.02	18.57	-2.55	-13.74	1.64
Any Days Household Without Food or Resources During Past Month?					
San Diego	33.53	37.77	-4.24	-11.23	1.50
Alabama	21.20	23.43	-2.23	-9.54	1.31
Any Household Member Skip Meals due to Inadequate Food or Resources During Past Month?					
San Diego	17.77	21.63	-3.86	-17.85	1.64
Alabama	8.21	9.90	-1.69	-17.12	1.44
Sample Size					
San Diego	572	571			
Alabama	1,255	1,131			

SOURCE: Evaluations of the San Diego and Alabama Food Stamp Cash-Out Demonstrations, household surveys (weighted tabulations for San Diego).

NOTE: One-tailed statistical tests for lower perceptions of food adequacy among check recipients were performed on the check-coupon differences shown in this table.

None of the differences shown in this table is statistically significant at the 90 percent confidence level or higher.

"Past month" is the month preceding the survey.

TABLE VII.5

COMPARISON OF CASH-OUT EFFECTS ON EXPENDITURE SHARES FOR SELECTED
FOOD AND NONFOOD CONSUMPTION CATEGORIES IN SAN DIEGO AND ALABAMA
(Percentage of Total Expenditures)

Consumption Category	Mean Share of Total Expenditures		Difference in Means		
	Check	Coupon	Absolute	Percentage	t-Statistic
All Purchased Food (Used at Home and Away from Home)					
San Diego	32.38	33.95	-1.57	-4.62	2.11 ^{††}
Alabama	43.31	43.43	-0.12	-0.27	0.15
All Shelter					
San Diego	51.42	49.42	2.00	4.01	2.02 ^{††}
Alabama	33.98	32.80	1.18	3.59	1.53 [†]
Medical					
San Diego	0.85	0.43	0.42	97.67	2.43 ^{††}
Alabama	4.70	4.43	0.27	5.96	0.66
Education					
San Diego	0.49	0.32	0.17	53.13	1.65 ^{††}
Alabama	1.02	1.26	-0.24	-18.85	1.91
Sample Size					
San Diego	542	536			
Alabama	1,209	1,080			

SOURCE: Evaluations of the San Diego and Alabama Food Stamp Cash-Out Demonstrations, household surveys (weighted tabulations for San Diego).

NOTE: One-tailed statistical tests for a lower expenditure share for all purchased food and for greater expenditure shares for other consumption categories among check recipients were performed on the check-coupon differences shown in this table.

Shelter includes housing and utilities.

[†]Statistically significant at the 90 percent confidence level, one-tailed test.

^{††}Statistically significant at the 95 percent confidence level, one-tailed test.

The reductions in expenditures for food used at home resulting from cash-out in San Diego were accompanied by a statistically significant decrease of 1.57 percentage points in the share of total household expenditures allocated to food. No such decrease occurred in Alabama, where the food expenditure share was essentially the same for check households and for coupon households. Check recipients in San Diego shifted expenditures from food to shelter, medical care, and education. In Alabama, the share of total expenditures allocated to shelter by check households was one percentage point higher than for coupon households. Virtually this entire increase is accounted for by a puzzling increase in the share of expenditures allocated to utilities under cash-out in Alabama. We found no other statistically significant effects of cash-out on expenditure shares in either demonstration site.

6. Attitudes Toward Checks and Coupons

Check and coupon recipients in San Diego and Alabama generally gave similar responses when asked what is good about checks and coupons. The most commonly cited advantage of checks was that they can be used to purchase items other than food; about 40 percent of check and coupon recipients in both sites cited this feature as an advantage of checks (Table VII.6). Although recipients in both sites mentioned avoiding embarrassment and being able to shop in a wider range of stores when using food stamp benefits as advantages of checks, those in San Diego were three to four times more likely than their Alabama counterparts to cite these features of checks. In Alabama, where food stamp coupons are typically issued over-the-counter at county food stamp offices, and where checks were issued by mail, recipients liked the fact that, under cash-out, they no longer had to go to the food stamp office to pick up their benefits. Recipients in San Diego did not mention this feature as an advantage of checks because, under both the coupon- and check-issuance systems in that county, benefits were mailed to most recipients.

Substantial percentages of check and coupon recipients in both San Diego and Alabama cited as an advantage of coupons their belief that coupons ensure that the benefits are spent on food;

TABLE VII.6

COMPARISON OF RECIPIENTS' ATTITUDES TOWARD CHECKS
AND COUPONS IN SAN DIEGO AND ALABAMA
(Percentage of Households)

Attitude	Check Recipients		Coupon Recipients	
	San Diego	Alabama	San Diego	Alabama
Advantages of Checks				
Can be used for items other than food	42.1	42.9	39.7	39.4
More choices of stores	19.0	5.7	13.3	4.0
Do not feel embarrassed	16.2	5.3	10.5	2.8
Do not have to go to issuance office ^a	NA	16.2	NA	6.9
Advantages of Coupons				
Make sure benefits are spent on food	40.1	26.2	55.4	37.8
No taxes charged ^b	1.2	17.8	1.6	25.8
Sample Size	572	1,255	571	1,131
Coupons Are More Helpful in Planning and Budgeting Food Expenses				
Strongly agree or agree	43.6	52.2	62.7	79.4
Strongly disagree or disagree	56.3	47.8	37.3	20.7
Sample Size	543	1,144	513	982

SOURCE: Evaluations of the San Diego and Alabama Food Stamp Cash-Out Demonstrations, household surveys (weighted tabulations for San Diego).

^aIn Alabama, food stamp coupons are issued primarily over-the-counter, at local food stamp offices. In San Diego, food stamp coupons were issued primarily by mail.

^bIn Alabama, a sales tax is imposed on cash purchases of food, but not on coupon purchases of food. In California, no sales tax is imposed on food.

NA = not applicable.

however, recipients in San Diego were more likely than recipients in Alabama to mention this feature of coupons (Table VII.6). Eighteen percent of check recipients and 26 percent of coupon recipients in Alabama cited the absence of sales taxes on coupon purchases of food as an advantage of coupons.¹ These households may not have been aware that the State of Alabama added an extra amount to all check benefits to offset the taxes that are charged on cash purchases of food.

Food stamp recipients in Alabama were more likely than those in San Diego to report that the planning and budgeting of food expenses is easier with coupons than with checks. Table VII.6 shows that majorities of both check and coupon recipients in Alabama agreed with the statement that "food stamp coupons are more helpful in planning and budgeting the household's monthly food expenses." In San Diego, most coupon recipients agreed with the statement, but most check recipients disagreed with it.

7. Check-Cashing Experiences

Food stamp recipients in Alabama generally used different types of establishments to cash their benefit checks than did recipients in San Diego. Table VII.7 shows that recipients in Alabama were twice as likely as those in San Diego to cash their benefit checks in supermarkets, grocery stores, or other food stores (73 percent versus 38 percent). Nineteen percent of check recipients in San Diego cashed their benefit checks at check-cashing agencies, whereas less than 1 percent of recipients in Alabama did so.

Check recipients in San Diego were four times more likely than those in Alabama to pay a fee in order to cash their benefit checks; 37 percent of San Diego check recipients paid a fee to cash their checks, compared with only 9 percent of Alabama check recipients. When recipients had to pay a fee to cash their benefit checks, Alabama recipients generally paid lower fees than did San Diego recipients. Relative to the check-cashing fees paid in San Diego, the fees paid in Alabama were much more likely to be \$1 or less, and much less likely to exceed \$5.

¹In California, no sales tax is imposed on food.

TABLE VII.7
COMPARISON OF CHECK-CASHING EXPERIENCES OF
CHECK RECIPIENTS IN SAN DIEGO AND ALABAMA

Measure	Check Recipients	
	San Diego	Alabama
Place Where Check Is Usually Cashed (in percentages)		
Supermarket, grocery store, or other food store	37.9	73.3
Bank	36.9	23.4
Check-cashing agency	19.3	0.3
Other	5.8	3.0
Percent Paying a Fee to Cash Check	37.3	9.2
Fee Paid to Have Check Cashed (in percentages) ^a		
\$1.00 or less	38.1	56.9
\$1.01 to \$5.00	42.0	38.8
\$5.01 or more	20.0	4.3
Median Fee (in dollars) ^a	1.99	1.00
Percent Having Problems Cashing Checks	14.6	8.5
Sample Size	572	1,255

SOURCE: Evaluations of the San Diego and Alabama Food Stamp Cash-Out Demonstrations, household surveys (weighted tabulations for San Diego).

^aBased on data for 208 households in San Diego and 116 households in Alabama that paid a fee to have checks cashed and reported the amount of the fee.

Although recipients in San Diego were more likely than recipients in Alabama to report problems cashing their benefit checks, check-cashing problems were rare for recipients in both locations. Fifteen percent of all check recipients in San Diego reported one or more problems cashing their benefit checks, compared with 9 percent of all check recipients in Alabama.

B. HYPOTHESES ABOUT THE DIFFERENTIAL EFFECTS OF CASH-OUT IN SAN DIEGO AND ALABAMA

Before collecting and analyzing the data for the evaluations of the San Diego and Alabama Food Stamp Cash-Out Demonstrations, we believed that cash-out was more likely to reduce food consumption in Alabama than in San Diego. This expectation was based on both theoretical and empirical considerations.

On theoretical grounds, it seems likely that the issuance of food stamp benefits as coupons rather than as cash would have the largest effects on households for which food stamp benefits constitute a relatively large share of total purchasing resources. In particular, the more dependent a household is on food stamps for its overall purchasing power, the more likely it is that the issuance of food stamp benefits as coupons rather than as cash would constrain how the household spends its resources.²

Levels of cash income are generally lower in Alabama than in California. In addition, California's Aid to Families with Dependent Children (AFDC) benefit schedule is one of the nation's most generous, whereas Alabama's is among the least generous. As a result of these factors, we anticipated that cash-out was more likely to reduce food consumption in Alabama than in San Diego.

²Southworth (1946), as summarized by Fraker (1990), provided the seminal study of how the relative size of the food stamp benefit in a household's total purchasing power interacts with the form of the benefit to determine the impact of the benefit on food consumption. As Southworth shows, standard microeconomic theory suggests that the expected effect of the benefit form depends crucially on whether the household is "constrained" by the use of coupons in the sense that the value of the coupons is greater than the value of the food the household would purchase if all of its purchasing resources accrued as cash. Whether a food stamp household is so constrained can be inferred empirically by whether it makes all of its food purchases with coupons (and makes no supplemental purchases with cash), or whether it also supplements its food acquisition with cash purchases.

Selected data elements from our household surveys in San Diego and Alabama are consistent with this line of reasoning and, if considered in isolation from other data elements in the survey, provide an additional reason to believe that cash-out would be more likely to reduce food consumption in Alabama than in San Diego. The average cash income of coupon households in San Diego (\$877 per month) is twice as high as that in Alabama (\$441). That income disparity is the main reason why the average food stamp benefit amount received by coupon households in San Diego (\$118) is 30 percent lower than that in Alabama (\$169). As a consequence of these differences, food stamp benefits constitute a much larger percentage of the total monthly resources available to coupon households in Alabama (28 percent) than in San Diego (12 percent). Finally, the survey data show that 94 percent of coupon households in San Diego, compared with only 67 percent in Alabama, use some of their cash income to make supplemental purchases of food. In Southworth's theoretical framework, these selected findings from the household surveys indicate that cash-out would be more likely to reduce food consumption in Alabama than in San Diego.

Our findings of small but significant reductions in food consumption by San Diego households in response to cash-out and of essentially no changes in food consumption by Alabama households are counter to our a priori expectations. In the remainder of this section, we present our hypotheses to explain why our findings from San Diego and Alabama are counter to our expectations. Additional plausible hypotheses are likely to be advanced by others.

1. Hypotheses Related to the Design and Implementation of the Demonstrations

Four of our five hypotheses to explain why, counter to our expectation, cash-out had a larger negative effect on food consumption in San Diego than in Alabama concern differences in the designs of the demonstrations in the two sites.

a. The Visibility of the Demonstrations

The introduction of "pure" food stamp cash-out was much more visible in San Diego than in Alabama. In San Diego, cash-out began with the conversion of a substantial proportion of the food stamp caseload (20 percent) to checks, and with the intention to convert the entire caseload to checks within one year. In addition, the San Diego Department of Social Services was extremely enthusiastic about the demonstration and generated extensive publicity for it by issuing news releases to the media and by other similar measures.

In Alabama, the pure cash-out demonstration was much smaller; it involved only 4 percent of the food stamp caseload in the 12 affected counties. Those counties were scattered throughout the state and constituted less than one-fifth of the state's 67 total counties. Furthermore, the introduction of pure cash-out received relatively little media attention.

These differences in the visibility of the demonstrations might have led check recipients in San Diego to be more aware of the program change and to consider that change as permanent. This perception, in turn, might have led those check recipients to make more complete adjustments in their food consumption behavior than they otherwise would have made.

b. The Duration of the Demonstrations

The demonstration of pure food stamp cash-out lasted merely eight months in Alabama, but is scheduled to last for five years in San Diego. Given the relatively brief duration of the Alabama demonstration, some check recipients in Alabama might have decided that it made more sense to simply continue to use the check benefits in the same way that they had previously used coupon benefits. The establishment of new budgeting, shopping, and food-use patterns makes more sense if the time cost and other costs associated with learning such procedures can be amortized over a long period.

c. The Elapsed Time Between Initial Cash-Out and Data Collection

San Diego County began issuing benefits in the form of checks to 20 percent of its food stamp caseload in July of 1989. We collected the interview data for the evaluation of the San Diego demonstration from May to August of 1990. Thus, the San Diego households whose benefits were converted from coupons to checks had at least 10 months, and as many as 14 months, to adjust their food-use behavior before being interviewed.

Alabama began issuing benefit checks to approximately 4 percent of the food stamp caseload in the pure cash-out demonstration counties in May of 1990.³ Due to the need to complete survey field operations before the seasonal changes in food use associated with the Thanksgiving and Christmas holidays, we began collecting food-use data from a sample of check and coupon recipients in August of 1990. We completed our survey field operations in November of 1990. Thus, food stamp recipients in Alabama whose benefits had been converted from coupons to checks had a minimum of three months, and a maximum of seven months, to adjust their food-use behavior before being interviewed.

If households require more than just a few months to fully adjust their food-use behavior in response to the cashing-out of their food stamp benefits, then the short elapsed time between the commencement of cash-out in Alabama and the collection of food-use data might have resulted in estimates of cash-out effects that are small relative to the effects that might have been manifested over a longer period. We would expect this to be less of a problem in San Diego, where most of the survey respondents were interviewed a year or more after the commencement of cash-out.

An analysis of the money value of food used at home by month of interview revealed no significant check-coupon differences among Alabama food stamp recipients in any of the four survey months. It also revealed no trend in check-coupon differences over time within the survey fielding

³In Alabama, pure cash-out was originally scheduled to begin in January and to end in December of 1990. As a result of problems with the development of the required computer software, the commencement of the demonstration was delayed by four months.

period. This finding provides no empirical support for the hypothesis that the relatively short elapsed time between the commencement of cash-out in Alabama and the collection of household food-use data contributed to the divergence in our estimates of the effects of cash-out in Alabama and San Diego.⁴

d. A Combined Food Stamp and AFDC Check in San Diego

In the Alabama demonstration of pure food stamp cash-out, all food stamp checks were issued independently from any other assistance checks and were mailed in separate envelopes according to a schedule that was unique to the Food Stamp Program. In contrast, San Diego County issues AFDC and food stamp benefits in the form of single check made out to a recipient household for the combined amount of its benefits under the two programs. (A notice that accompanies the check provides a breakdown of the combined benefit into its component amounts.) Eighty-eight percent of food stamp check recipients in San Diego also receive AFDC benefits and, hence, receive a combined check.

Many recipients of combined AFDC and food stamp checks in San Diego were unable to correctly report their food stamp benefit amounts to our survey field staff. They frequently reported either the AFDC benefit amount or the sum of the AFDC and food stamp benefit amounts as being their food stamp benefit amount. After carefully evaluating the self-reported AFDC and food stamp benefit amounts, we concluded that those data were highly unreliable; thus, when analyzing the

⁴A related analysis found no significant difference in the mean money value of food used at home between Alabama households that had *always* received their food stamp benefits in the form of checks (these households had began participating in the FSP subsequent to the commencement of cash-out) and households that were receiving coupons. The households that had always received their food stamp benefits in the form of checks did not personally experience the transition from coupons to checks, so, presumably, they did not need a long adjustment period for the true impact of the check benefit on their food use to manifest itself. The absence of a significant cash-out effect among these households is further evidence that our finding of no effect of cash-out on a full cross-section of the food stamp caseload is not biased by the relatively short elapsed time between the commencement of cash-out and the collection of household food-use data. The findings from both of these analyses are described in project memo ALC-190, dated 6-5-92.

effects of the demonstration, we used benefit data obtained from county food stamp and AFDC program files.⁵

When the food stamp benefit is so intermingled with the AFDC benefit that the recipient might have difficulty distinguishing the two, the ability of the recipient to set aside the food stamp benefit for the purchase of food is compromised. Under these conditions, the probability is increased that the recipient will use the food stamp benefit in much the same way that he or she uses the AFDC benefit and other cash income. Thus, combining the AFDC and food stamp benefits in San Diego, in contrast to issuing distinctly different checks under those two programs in Alabama, might have contributed to the finding that cash-out had a number of significantly negative effects on food consumption in San Diego, but had essentially no effects in Alabama.

2. A Hypothesis Related to Differences Between the Food Stamp Caseloads in San Diego and Alabama

The households in the food stamp caseload in Alabama might, on average, be more resistant to change than those in San Diego. If so, we would expect the Alabama caseload to respond to external changes more slowly and less completely than would the San Diego caseload. Such differential responses might partially explain our finding of essentially no effects of cash-out on food-consumption behavior in Alabama, and of a number of small but significant negative effects in San Diego.

An examination of several variables that might be proxies for the degree to which a population group is "traditional" or "conservative" in its attitude toward change supports the characterization of the Alabama caseload as being likely to be more traditional and conservative than the San Diego caseload. First, about one-half of Alabama's food stamp caseload resides in rural counties, whereas all of San Diego's caseload resides in an urban county.⁶ In addition, data from the household

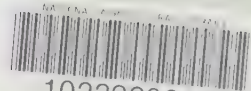
⁵In the Alabama evaluation, we also used food stamp and AFDC benefit data obtained from state program files. We did so not because of any problems with the recipient-reported benefit amounts, but, rather, to maintain comparability between the two evaluations of pure cash-out.

⁶Program data for December 1989 show that 54 percent of Alabama's food stamp caseload resides in rural counties.

surveys show that only 41 percent of food stamp recipients in Alabama have completed high school, compared with 56 percent in San Diego, and that 25 percent of recipient households in Alabama include an elderly person, compared with only 2 percent in San Diego.⁷ Those who live in rural areas, have little education, or are elderly might be more likely to follow established routines in many aspects of their lives, rather than to experiment with new ways of doing things. Moreover, the common images of California as having a relatively untraditional population, and of the South as having a very traditional population, which is resistant to change, further support this hypothesis.

In our analyses of differences in regression-adjusted mean values of the principal food-consumption outcome measures in the evaluations of the San Diego and Alabama Food Stamp Cash-Out Demonstrations, we imposed crude controls for urban-rural residence, education, and age. Nevertheless, we still found a number of negative effects of cash-out in San Diego and essentially no effects in Alabama. The persistence of these findings in the presence of those controls suggests that the hypothesis that Alabama's food stamp caseload is more traditional than San Diego's might be limited in its capacity to account for the differences in our findings between the two demonstration sites. However, the controls that we imposed for the effects of those variables were rather crude and, more importantly, the cash-out data sets provide few measures of, or proxies for, subtle characteristics of traditional populations that might influence the responses of those populations to cash-out. Therefore, it would be premature to entirely reject this hypothesis.

⁷The statistics cited in the text are from Table II.3 of Ohls et al. (1992) and from Table III.3 of this report. California provides elderly food stamp recipients who also receive Supplemental Security Income with a combined benefit in the form of a single monthly check. Such individuals are not included in the 2 percent figure that is cited in the text. An alternative measure of age from the household surveys is the percentage of sampled persons among the households that participated in the surveys who are at least 35 years old: 60 percent in Alabama, and 36 percent in San Diego.



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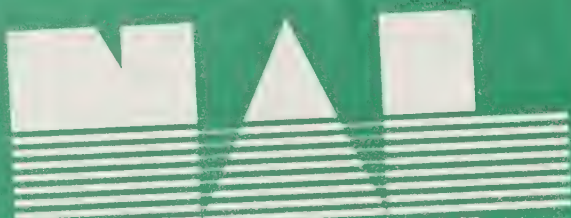
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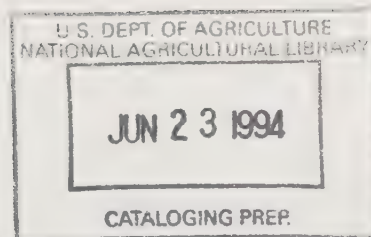
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**THE EVALUATION OF THE ALABAMA
FOOD STAMP CASH-OUT DEMONSTRATION**

VOLUME II

**ADMINISTRATIVE OUTCOMES, OVERALL
CONCLUSIONS, AND APPENDICES**

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GLOSSARY OF ABBREVIATIONS

AFDC	Aid to Families with Dependent Children
AME	Adult Male Equivalents (a measure of household size, scaled to take into account different nutritional requirements due to differences in age, gender, and pregnancy and lactation status)
ASSETS	Alabama State's welfare reform program, Avenues of Self Sufficiency through Employment Training Services
ATP	Authorization-To-Participate card (a card issued by county food stamp offices in Alabama and signed by clients that contains the specifications of coupon issuance for each client)
DHR	Alabama Department of Human Resources
EBT	Electronic Benefits Transfer (an alternative form of food stamp benefit issuance)
ENU	Equivalent Nutrition Units (a measure of household size, scaled to take into account different nutritional requirements due to differences in age, gender, pregnancy and lactation status, and numbers of meals eaten at home)
FCU	Food Consumption Unit (the household members who eat meals together)
FIP	Washington State's welfare reform program, Family Independence Project
FNS	U.S. Department of Agriculture, Food and Nutrition Service
FSP	Food Stamp Program
HH	Household
ID	Identification
MPC	Marginal Propensity to Consume (the increase in food purchases resulting from a \$1.00 increase in income or in food stamp benefits)
MPR	Mathematica Policy Research, Inc.
NSLP	National School Lunch Program
RDA	Recommended Dietary Allowance (the daily consumption level of a nutrient believed to be sufficient for good health for most persons; it varies by age and gender)
SBP	School Breakfast Program
SSI	Supplemental Security Income

TFP	Thrifty Food Plan (used as the basis for setting levels of Food Stamp Program benefits)
UI	Unemployment Insurance
USDA	U.S. Department of Agriculture
WIC	Special Supplemental Food Program for Women, Infants, and Children

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EXECUTIVE SUMMARY

The Alabama Food Stamp Cash-Out Demonstration took place in 12 of Alabama's 67 counties during the period May through December, 1990. Under the demonstration, a small percentage of randomly selected food stamp recipients received their program benefits in the form of checks, rather than in the traditional coupon form. This report describes the impacts of the demonstration on the food-purchasing and food-use patterns of Food Stamp Program (FSP) recipients. It also describes the planning and implementation of the demonstration and assesses the impacts of cash-out on the costs of administering the FSP.

POLICY CONTEXT

The form of the benefits provided under the FSP has been an issue of long-standing debate. Advocates of the current coupon system argue that coupons are a direct and inexpensive way to ensure that food stamp benefits are used to purchase food. They contend that, despite some evidence of fraud and benefit diversion under the current system, the unauthorized use of food stamps is relatively limited. In addition, they contend that coupons provide some measure of protection to food budgets from other demands on limited household resources.

Advocates of cashing out food stamp benefits argue that the current system limits the food-purchasing choices of recipients and places a stigma on participation in the program. Moreover, they cite the cumbersome nature and cost of coupon issuance, transaction, and redemption.

The current debate about the desirability of one form of food stamp benefit over the other is limited by the paucity of available empirical evidence comparing coupon and cash food benefits. The U.S. Department of Agriculture, Food and Nutrition Service (FNS) conducted two studies in the early 1980s: (1) the evaluation of the Supplemental Security Income/Elderly Cash-Out Demonstration, and (2) the evaluation of Puerto Rico's Nutrition Assistance Program. Although both studies produced useful findings, they examined cash-out as applied to highly atypical food stamp populations--in the first instance, to elderly participants in the program, and, in the second, to participants in Puerto Rico, whose incomes are very low relative to those of participants in the mainland United States. Thus, the results of those studies could not be reliably generalized to the broader food stamp caseload.

Therefore, it is important to obtain additional information about the effects of cash-out, so as to better inform the policy debate. The Alabama Food Stamp Cash-Out Demonstration has been designed to allow a rigorous evaluation of the effects of cash-out. The Alabama demonstration is one of four tests of the cash-out approach that FNS has undertaken since 1989. The other three are: (1) the Washington State Family Independence Program (FIP), (2) the Alabama Avenues to Self-Sufficiency through Employment and Training Services (ASSETS) Demonstration, and (3) the San Diego Food Stamp Cash-Out Demonstration.

The Washington State FIP and the Alabama ASSETS demonstrations are testing cash-out in conjunction with other changes in the welfare systems in those states. However, the Alabama Food Stamp Cash-Out Demonstration, like the San Diego demonstration, is testing cash-out without any other changes. Therefore, it is of particular interest to compare the latter two evaluations. This report provides a number of such comparisons.

THE TIMING OF THE DEMONSTRATION

The Alabama Food Stamp Cash-Out Demonstration was implemented in two urban and ten rural counties in May of 1990. In those counties, approximately 4 percent of the existing caseload and 4 percent of new cases that entered the FSP over the course of the demonstration were randomly selected to receive benefits in the form of checks. December of 1990 was the last month in which cash benefits were issued under the demonstration. As of the date of this report, Alabama continues to issue cash benefits to food stamp recipients in three counties under the separate ASSETS Demonstration.

THE SETTING OF THE DEMONSTRATION

Alabama has a population of 4 million people. On average, those people are more likely to reside in rural areas than is true for the population of the United States as a whole. In addition, residents of Alabama are more likely to be unemployed or to have low incomes than is the case nationwide; Alabama's unemployment rate is one-third higher, and its average per capita income is 20 percent lower, than are those of the United States as a whole.

Alabama's low-income population depends heavily on food stamps. In 1989, 11 percent of the residents of Alabama received food stamps; only six states and the District of Columbia had higher proportions of residents receiving food stamps. At \$146 in July of 1989, the average household food stamp benefit in Alabama was 10 percent higher than the \$135 average in the United States as a whole. This difference is due, in part, to low levels of cash assistance benefits in Alabama. General Assistance is not available in Alabama, and Aid to Families with Dependent Children (AFDC) provides low benefit levels; in 1990, Alabama's maximum monthly AFDC payment of \$118 for a three-person family was the lowest in the nation. Compared with food stamp households nationwide, a higher proportion of food stamp households in Alabama earn income, but the average amount of earned income is relatively low. In addition, food stamp households in Alabama are 60 percent more likely than food stamp households nationwide to be elderly.

These characteristics of Alabama and of those of its residents who are served by the FSP should be kept in mind when assessing the findings from the Alabama Food Stamp Cash-Out Demonstration and when attempting to generalize from those findings to other areas of the United States. The many large differences between food stamp households in Alabama and elsewhere (including other rural states and states with low AFDC benefits) suggest that the Alabama findings might generalize poorly to many other states. These factors highlight the importance of considering the Alabama findings jointly with the findings from the other contemporaneous cash-out evaluations.

RESEARCH QUESTIONS AND OUTCOME VARIABLES: RECIPIENT IMPACTS

This report addresses questions pertaining to the impacts of cash-out on recipients of food stamp benefits and on the administration of the FSP. The research questions and methodologies pertaining to the impacts of cash-out on food stamp recipients are identical in the evaluations of the Alabama and San Diego Food Stamp Cash-Out Demonstrations. They are as follows:

Does cash-out lead to reductions in the money value of food used at home? The regular coupon-based FSP provides benefits that, in general, can legally be used to purchase food only at authorized outlets, and to purchase only those items that are eligible under program regulations. This

earmarking of benefits is intended to further the stated objective of the FSP of "raising the levels of nutrition among low-income households" by encouraging recipient households to purchase food for use at home. Thus, the program's direct impact is expected to be on the amounts of food purchased for use at home. The analysis presented in this report examines the effects of cash-out on the money value of purchased food used at home in order to obtain direct evidence as to whether cash-out reduces the means (that is, the use of purchased food at home) through which the FSP is expected to affect nutrition.

The principal outcome measure in the analysis of the money value of purchased food used at home is based on detailed survey data on the use of food at home by households during the seven days that preceded a survey conducted as part of the evaluation. In some components of the analysis, we adjust this measure for differences in household size and composition by dividing the money value of food used by the number of "adult male equivalent" (AME) persons in the household. This measure states a household's size in terms of the number of adult males that would be expected to consume the same amount of food as the household would be expected to consume, given its age and gender composition. We also use a second adjusted measure of household size, the number of "equivalent nutrition units" (ENUs), which further adjusts a household's size to control for the percentage of all meals that its members eat from the home food supply.

The analysis also examines effects on the money value of *all* food used at home, including both purchased food and nonpurchased food. Although spending food coupons and food checks can *directly* affect the use of purchased food only, cash-out might have *indirect* effects on the use of nonpurchased food by making households more likely to use food received through government commodity distribution programs, food received from food pantries or other charitable organizations, food received as gifts from friends and relatives, or home-produced food. Therefore, it is important to assess not only the effects of cash-out on purchased food used at home, but also its effects on all food used at home.

The outcome measures for the analysis of the money value of all food used at home are drawn from the same survey as were the outcome measures described previously. They include measures adjusted for household age and gender composition, as well as for the percentage of meals eaten at home. We estimated the dollar value of nonpurchased food used by a household by using imputed prices; the imputed prices were the average values of the reported prices of similar food items that had been purchased by the households participating in the survey.

Does cash-out lead to reductions in the nutrients available to household members? To the extent that cash-out leads to reductions in the use of food at home, there might be associated reductions in the nutrients available to household members. For both check households and coupon households, we examine the average levels of nutrient availability in relation to the recommended dietary allowances (RDAs) for key nutrients.

Does cash-out lead households to run out of food? Critics of food stamp cash-out have been concerned that, under this form of benefit issuance, households might spend their benefits on nonfood products and services and, consequently, might run out of food by the end of each month. It is important to assess whether households ran out of food in the Alabama Food Stamp Cash-Out Demonstration. The analysis is based largely on the reported perceptions of respondents to the household survey regarding the adequacy of the food available to their households in the month preceding the survey.

Does cash-out lead households to switch to food purchased and used away from home? In general, coupon benefits cannot be used in restaurants. However, cash benefits can be used to purchase food in any location. Therefore, it is of interest to consider whether cash-out leads households to switch their food expenditures from food used at home to food purchased and used away from home. We examine this issue by analyzing both the money value of food purchased away from home and the share of all food expenditures accounted for by food used away from home.

Does cash-out result in shifts of spending to nonfood consumption categories? To the extent that cash-out leads to reduced expenditures for food, it might lead to increased expenditures for other types of consumption items. To examine this issue, the study analyzes the shares of expenditures for all major categories of consumer goods and services.

What are the attitudes of program participants toward cash-out? A full assessment of the cash-out approach to food stamp benefit issuance must consider how program participants perceive check benefits relative to coupon benefits. Of particular interest are participants' attitudes toward the relative flexibility of check benefits and toward the potential food-budgeting problems created by the use of checks. We use survey and focus group data to examine these issues.

What experiences have clients had when cashing food stamp checks? It is important to assess whether the value of food stamp benefits to program participants is significantly eroded by any fees that clients might have to pay in order to cash their checks. We use the survey data to examine this and other possible difficulties in the check-cashing process.

RESEARCH QUESTIONS AND OUTCOME VARIABLES: ADMINISTRATIVE OUTCOMES

The Alabama demonstration provided cash benefits to only four percent of the food stamp caseload in 12 out of 67 counties, whereas the San Diego demonstration provided cash benefits to all food stamp recipients after an initial period of providing cash benefits to 20 percent of the caseload. As a consequence of these design differences, the San Diego demonstration can support a more comprehensive analysis of the impacts of cash-out on administrative outcomes. This report addresses the following research questions pertaining to the impacts of cash-out in Alabama on FSP administrative outcomes.

What tasks and staff were involved in planning and implementing the Alabama Food-Stamp Cash-Out Demonstration? Analyzing the process of planning, implementing, and operating cash-out in Alabama aids in understanding the demonstration's impact on recipient behaviors, administrative costs, and losses. The process analysis also aids in assessing the degree to which the Alabama experience can be generalized to other states, and the potential usefulness of the demonstration experience for developing future policy. This analysis is based on Alabama Department of Human Resources documents and on interviews with program staff.

Does switching from coupons to checks reduce benefit-issuance costs? If so, do the savings accrue to the state government or to the federal government? A major impetus behind the interest in food stamp cash-out is an expected savings in administrative costs through the streamlining of benefit issuance. Switching from coupons to checks eliminates or reduces some issuance activities and costs, but creates or increases others. We use time estimates provided by program staff and data on other resources used in issuance to estimate the savings and cost increases, identify the levels of government at which the savings and costs occur, and arrive at an overall picture of the impacts of cash-out on issuance costs at the federal and state levels of government.

Does switching from coupon issuance to check issuance reduce or increase the incidence or amount of benefit loss, and in what specific areas? Loss of benefits can occur through theft during coupon production, shipment, and storage; overissuances due to clerical error; and excessive issuance due to the fraudulent use of authorization-to-participate cards. We assess the impact of the Alabama Food Stamp Cash-Out Demonstration on these types of losses by examining program data on reported losses, supplemented with narrative material from focus group discussions with FSP participants. Our findings include estimates of the amounts of loss borne by the state and federal governments, food stamp recipients, and third parties, and of how those losses changed under cash-out.

DATA COLLECTION

The findings on recipient impacts that we present in this report are based largely on data obtained from an in-person survey of 1,255 check recipients and 1,131 coupon recipients that we conducted between August and November of 1990. Of the responding households, 48 percent resided in the demonstration's two urban counties, and 52 percent resided in the demonstration's ten rural counties, thus closely approximating the 46 percent/54 percent urban/rural distribution of the entire food stamp caseload in Alabama.

The recipient survey obtained detailed information on household composition and income receipt. It also collected very extensive data on the foods used by each household during the seven days preceding the interview. In the survey, respondents were also asked questions about their households' attitudes toward and experiences with cash-out. The survey attained a response rate of 78 percent (80 percent among check recipients; 76 percent among coupon recipients) for the questions on household composition, income, and attitudes, and a rate of 75 percent (78 percent among check recipients; 73 percent among coupon recipients) for the questions on food use.

To supplement the recipient survey data, we also draw on information obtained during four focus group discussions with FSP participants. The discussions were held in one urban site (the city of Birmingham, in Jefferson County) and in one rural site (the town of Fayette, in Fayette County) with participants who had previously received their benefits as coupons, but whose benefit form had been converted to checks. Two sessions were held at each site, one with elderly program participants, and one with nonelderly participants. The focus groups enabled us to explore issues related to client experiences with cash-out in greater depth than was possible in the structured survey.

The findings on administrative outcomes that we present in this report are based on information obtained through in-person and telephone interviews with county-level and state-level FSP staff in Alabama, telephone interviews with representatives of advocacy groups, a mail survey of FSP staff who had handled check-issuance problems, and data compiled or tabulated by FSP staff. We supplement these sources with information obtained from program procedures manuals, official periodic reports on program operations, and other material. Some information was obtained from the focus group discussions with FSP participants. Federal-level issuance costs were obtained from an evaluation of a demonstration of the electronic transfer of food stamp benefits (Kirlin et al., 1990).

FINDINGS FROM THE ANALYSIS OF RECIPIENT IMPACTS

The evaluation of the Alabama Food Stamp Cash-Out Demonstration has produced little evidence of any effect of cash-out on food stamp recipients in Alabama. For almost all outcome

measures corresponding to the study's research questions on recipient impacts, the difference in mean values between check recipients and coupon recipients is small in an economic or nutritional sense and is not significantly different from zero in a statistical sense. This section summarizes the key findings of the study concerning each of the previously highlighted research questions on recipient impacts.

The money value of food used at home. The evidence from the household survey indicates that cash-out did not lead to a reduction in the money value of food used at home. As shown in Table 1, the mean weekly value of purchased food used at home (the measure of food use that is most directly affected by the FSP) is \$54.85 for coupon recipients and \$55.46 for check recipients. The 1 percent difference in mean values is not statistically significant. This finding of no reduction in the money value of food used at home under cash-out holds regardless of whether the outcome measure includes only purchased food or includes all food used at home, and regardless of whether the measure is scaled by ENUs to adjust for differences in household composition and differences in the percentage of meals eaten at home.

There is no evidence from this study that the absence of negative impact of cash-out on the money value of food used at home by all food stamp households is masking a negative impact on the subset of food stamp households that are at greatest nutritional risk. A comparison of check and coupon households in the lower tail of the cumulative distribution of the money value of food used at home per ENU revealed that cash-out had virtually no effect on the use of food by those households.

Nutrient availability. For food energy, protein, and seven micronutrients that are regarded as potentially problematic from a public health perspective, the estimated effects of the demonstration on availability from food used at home are small, ranging from 0 percent to 3 percent, and mixed in sign (Table 2). These small and statistically insignificant differences between check and coupon recipients support the conclusion that cash-out did not result in a reduction in nutrient availability. Data from the demonstration on the percentages of households for which the availability of these nutrients equals or exceeds the RDAs also support this conclusion. For example, the availability of food energy from food used at home was less than the RDA for 20 percent of both check and coupon households.

Running out of food. Cash-out did not increase the incidence of perceived shortages of food in households. Indeed, as shown in Table 3, the percentage of households that reported not having enough food during the month preceding the survey is 3 percentage points lower for check recipients than for coupon recipients (16 percent versus 19 percent). The interview question on which this finding is based asked whether respondents had always had "enough" food during the preceding month. We do not know exactly how respondents interpreted this concept. However, it is interesting to note that the percentages of check and coupon households that reported having not "enough" food are roughly equivalent to the percentages for which the availability of food energy from food used at home was less than the RDA.

Respondent reports on the skipping of meals by household members due to insufficient food also are consistent with the conclusion that cash-out did not increase the incidence of shortages of food. Again, check recipients were somewhat less likely than coupon recipients to report that one or more household members skipped meals during the month preceding the survey because food was unavailable.

TABLE 1
MONEY VALUE OF FOOD USED AT HOME
(In Dollars per Week)

	Mean Value		Difference in Means		
	Check	Coupon	Absolute	Percentage	t-Statistic
Money Value of Purchased Food Used at Home					
For the overall household	55.46	54.85	0.61	1.13	0.43
Per equivalent nutrition unit ^a	33.43	33.66	-0.23	-0.69	0.31
Money Value of all Food Used at Home					
For the overall household	60.31	59.54	0.77	1.29	0.50
Per equivalent nutrition unit ^a	36.25	36.41	-0.16	-0.44	0.21

SOURCE: Evaluation of the Alabama Food Stamp Cash-Out Demonstration, household survey.

NOTE: In this study, critical values of the t-statistic for a two-tailed test (for example, a test of the hypothesis that cash-out caused a *change* in food use) are 1.960 (95 percent confidence) and 1.645 (90 percent confidence); for a one-tailed test (for example, a test of the hypothesis that cash-out caused a *reduction* in food use), they are 1.645 (95 percent confidence) and 1.282 (90 percent confidence).

One-tailed statistical tests for lower money value of purchased food and all food used at home by check recipients were performed on the check-coupon differences shown in this table. None of the differences is statistically significant at the 90 percent confidence level or higher.

^aHousehold size in "equivalent nutrition units" is an adjusted measure of household size that takes into account differences in recommended levels of food energy among households with different compositions in terms of the age, gender, and pregnancy and lactation statuses of household members. In addition, this measure takes into account the percentage of meals eaten at home by household members, as well as meals served by the household to guests.

TABLE 2

NUTRIENT AVAILABILITY
PER EQUIVALENT NUTRITION UNIT
(Nutrient Levels as a Percentage of the RDA)

Nutrient	Mean Value		Difference in Means		
	Check	Coupon	Absolute	Percentage	t-Statistic
Food Energy	162.19	161.46	0.73	0.45	0.22
Protein	258.18	258.99	-0.81	-0.31	0.15
Vitamin A	227.32	229.71	-2.39	-1.04	0.26
Vitamin C	250.63	255.40	-4.77	-1.87	0.60
Vitamin B ₆	157.59	157.30	0.29	0.19	0.09
Folate	223.94	221.69	2.25	1.02	0.39
Calcium	121.34	117.61	3.73	3.18	1.23
Iron	183.99	183.87	0.12	0.06	0.02
Zinc	127.28	128.87	-1.59	-1.23	0.56

SOURCE: Evaluation of the Alabama Food Stamp Cash-Out Demonstration, household survey.

NOTE: One-tailed statistical tests for lower availability of nutrients among check recipients were performed on the check-coupon differences shown in this table. None of the differences is statistically significant at the 90 percent confidence level or higher.

RDA = recommended dietary allowance.

TABLE 3

RECIPIENTS' PERCEPTIONS OF THE ADEQUACY
OF THE HOUSEHOLD FOOD SUPPLY
(During Previous Month)

	Percentage of Respondents		Difference in Percentages		
	Check	Coupon	Absolute	Percentage	t-Statistic
Respondents Reporting Household Did Not Have Enough Food	16.02	18.57	-2.55	-13.74	1.64
Respondents Reporting Household Member Skipped Meals Due to Insufficient Food	8.21	9.90	-1.69	-17.12	1.44

SOURCE: Evaluation of the Alabama Food Stamp Cash-Out Demonstration, household survey.

NOTE: One-tailed statistical tests for lower perceptions of food adequacy among check recipients were performed on the check-coupon differences shown in this table. None of the differences is statistically significant at the 90 percent confidence level or higher.

The household survey provides little evidence that check recipients were more likely than coupon recipients to avoid shortages of food by relying more heavily than coupon recipients on nonpurchased food or on government food-assistance programs. Both groups of recipients reported that they used home-produced food and food that they had received as a gift or as a payment-in-kind that had an average money value of about \$4.75 per household per week. Check and coupon households also reported similar rates of participation in most government food-assistance programs. However, check recipients did report that they participated in government commodity-distribution programs during the month preceding the survey at a greater rate (20 percent) than did coupon recipients (17 percent). This difference is statistically significant at the 95 percent confidence level.

The purchase of food used away from home. Cash-out did not lead to an increase in the purchase of food used away from home, such as restaurant meals. Contrary to expectations, the mean weekly expenditure for food prepared and used away from home was slightly lower for check recipients than for coupon recipients (\$3.29 versus \$3.50, for the overall household). Similarly, check recipients reported eating a slightly lower percentage of their meals away from home.

Other types of consumption expenditures. One of the basic concerns about food stamp cash-out is that it might lead recipient households to shift their spending away from food used at home and to food used away from home and nonfood goods and services. Table 4 shows the percentage shares of total expenditures that households in the demonstration allocated to broad categories of consumer goods and services. This table shows that, relative to coupon recipients, check recipients did not allocate a smaller percentage of their total expenditures to food used at home, nor did they allocate a greater percentage to food used away from home. Among the nonfood consumption categories, the only category for which check recipients reported a significantly larger expenditure share than coupon recipients is the utilities component of shelter expenses. Check recipients reported allocating 1.1 percentage points more of their total consumption expenditures to utilities. Further investigation would be required to determine if this difference was actually caused by cash-out.

Participant attitudes toward cash-out. Virtually all benefit recipients who participated in the focus group discussions preferred checks to coupons. The major reasons given for this preference were: checks can be used to purchase nonfood items, such as paper products; receiving checks by mail is more convenient than picking up coupons in-person at the food stamp office; and check benefits promote the self-esteem of recipients.

The respondents to the household survey were asked a series of open-ended questions about the aspects of check and of coupon issuance that they thought were good and bad. The advantage of checks most commonly cited by check recipients was that checks can be used to purchase items other than food. Forty-three percent of the check recipients who responded to the survey mentioned this characteristic of checks (Table 5). It is not necessarily the case that these respondents actually used their check benefits to buy nonfood items. The second most commonly mentioned advantage of checks was that they eliminate the need to go to the food stamp issuance office. The frequent mention of this characteristic reflects the fact that, in Alabama, food stamp coupons are typically issued over-the-counter at food stamp offices, whereas food stamp checks were issued by mail. Sixteen percent of check recipients mentioned the elimination of the need to go to the food stamp office to pick up their benefits as an advantage of checks.

Coupon recipients tended to cite as an advantage of coupon issuance the fact that coupons ensure that benefits are spent on food. Thirty-eight percent of the coupon recipients who responded to the survey mentioned this characteristic of coupons. Thirteen percent of coupon recipients mentioned a related advantage, that coupons make it possible to budget food expenses better. In

TABLE 4

EXPENDITURE SHARES, BY CONSUMPTION CATEGORY
 (Entries Are Percentages of Total Expenditures in Each Category)

Consumption Category	Mean Percentage Share of Total Expenditures		Difference in Means		
	Check	Coupon	Absolute	Percentage	t-Statistic
All Purchased Food	43.31	43.43	-0.12	-0.27	0.15
Food at home	41.34	41.27	0.07	0.17	0.09
Food away from home	1.98	2.17	-0.19	-8.77	0.94
All Shelter	33.98	32.80	1.18	3.59	1.53 [†]
Housing	14.16	14.04	0.12	0.89	0.21
Utilities	19.82	18.76	1.06	5.61	1.88 ^{††}
Medical	4.70	4.43	0.27	5.96	0.66
Transportation	8.28	8.60	-0.32	-3.72	0.72
Clothing	5.23	5.62	-0.39	-6.97	1.08
Education	1.02	1.26	-0.24	-18.85	1.91
Dependent Care	0.62	0.81	-0.19	-23.78	1.37
Recreation	1.47	1.61	-0.14	-8.47	0.89
Personal Items	1.39	1.43	-0.04	-3.16	0.42
Total	100.00	100.00			
Mean Total Expenditure	\$633.05	\$632.49			

SOURCE: Evaluation of the Alabama Food Stamp Cash-Out Demonstration, household survey.

NOTE: One-tailed statistical tests for lower expenditure shares for "all purchased food" and for "(purchased) food at home" and for greater expenditure shares for other consumption categories among check recipients were performed on the check-coupon differences shown in this table.

[†]Statistically significant at the 90 percent confidence level, one-tailed test.

^{††}Statistically significant at the 95 percent confidence level, one-tailed test.

TABLE 5

MOST COMMONLY MENTIONED ADVANTAGES OF CHECKS AND COUPONS

	Percentage of Respondents Mentioning Advantage
Advantages of Checks^a	
Can be used for items other than food	42.9
Do not have to go to issuance office	16.2
More choices of food stores	5.7
Do not feel embarrassed	5.3
Does not involve standing in line for a long time	5.3
More convenient/easier to spend	5.3
Advantages of Coupons^b	
Make sure benefits spent on food	37.8
No sales taxes charged	25.8
Can budget food expenses better	12.6

SOURCE: Evaluation of the Alabama Food Stamp Cash-Out Demonstration, household survey.

^aSample limited to check recipients.

^bSample limited to coupon recipients.

Alabama, state and county sales taxes are charged on all cash purchases of food, including purchases made with the proceeds of food stamp checks. Despite the fact that the state augmented the check benefits to offset the sales tax, 26 percent of coupon recipients cited the absence of sales taxes on coupon purchases of food as an advantage of coupon issuance. It is likely that many coupon recipients were unaware of the sales tax offset that was added to the check-benefit amounts.

Check-cashing experiences. Seventy-three percent of check recipients cashed their food checks at a supermarket, grocery, or other food store, and another 23 percent cashed or deposited them at a bank (Table 6). Most of these establishments did not charge fees for cashing food stamp checks. Fewer than 1 percent of check recipients used check-cashing outlets, which did charge fees.

The vast majority of check recipients (91 percent) paid no fee to cash their food stamp checks. Most of those who did pay a fee paid \$1 or less (57 percent of fee payers).

FINDINGS FROM THE ANALYSIS OF ADMINISTRATIVE OUTCOMES

The evaluation of the Alabama Food Stamp Cash-Out Demonstration provides findings on the lessons learned during the planning and implementation of the demonstration, and on the impact of cash-out on administrative costs and benefit losses. This section summarizes the key findings of the study concerning each of the previously highlighted research questions on administrative outcomes.

The planning and implementation of cash-out. A number of Alabama officials, most notably the Commissioner of the Alabama Department of Human Resources (DHR), were eager to implement a cash-out demonstration. Most of their efforts to achieve that goal occurred in the context of the ASSETS welfare reform demonstration; however, those efforts also made feasible the implementation of "pure cash-out"--the Alabama Food Stamp Cash-Out Demonstration. To garner public support for these demonstrations, the Commissioner and other high-level DHR staff participated in legislative hearings on welfare reform, attended meetings with FSP and public housing staff, and presided over informational meetings on cash-out and welfare reform for retail trade associations, county DHR directors, civic groups, and advocacy groups.

One key issue that had to be resolved before cash-out could be implemented was how to compensate check recipients for state and county sales taxes, which are levied on cash purchases of food, but not on coupon purchases of food. DHR resolved this issue by allocating its own funds to be used to augment the food stamp benefit of each check recipient by 7 percent, the approximate amount of the sales tax. This recurring monthly cost made DHR sensitive to the duration of the demonstration.

The development of the computer software that was an integral component of the check-issuance system was a major challenge in implementing the demonstration. This work absorbed considerable resources, primarily in the form of labor hours by the staff of DHR and a DHR contractor. The software development required more labor hours and more calendar time than was originally anticipated, which was one reason why the implementation of cash-out was delayed by four months, from January to May of 1990. The development of the software was complicated by two factors: (1) Alabama was implementing two related demonstration programs simultaneously ("pure cash-out" and ASSETS), and (2) some modifications to the cash-out automated system, which had been made before the evaluator of the pure cash-out demonstration was hired, had to be changed to fit the needs of the evaluation. With the exception of the modifications to the automated system, cash-out was implemented very smoothly. In addition to the systematic groundwork laid by the Commissioner,

TABLE 6
CHECK-CASHING EXPERIENCES OF CHECK RECIPIENTS

Check-Cashing Experience	Percentage of Respondents
Place Where Check Is Usually Cashed	
Supermarket, grocery store, or other food store	73.3
Bank	23.4
Check-cashing outlet	0.3
Other	3.0
Was a Fee Charged to Cash Check?	
Yes	9.2
No	90.8
Amount of Check-Cashing Fee, if Fee Was Charged ^a	
\$0.01 to \$1.00	56.9
\$1.01 to \$5.00	38.8
\$5.01 or more	4.3

SOURCE: Evaluation of the Alabama Food Stamp Cash-Out Demonstration, household survey.

^aThe statistics given in this section of the table are based on the fee amounts that were reported by the 116 households that reported paying a fee to cash their food stamp checks.

an important factor in the ease of implementation was the training provided by DHR to its county and state staff. A DHR staff trainer who was well-informed about cash-out worked full-time to ensure that all relevant DHR staff had a good working knowledge of cash-out and of its associated new procedures.

We estimate that the labor and associated costs of planning and implementing cash-out were \$183,000, with the majority of that amount going to software development. This estimate includes fringe benefits, but does not include overhead. It also includes the cost of contracted services and products.

Issuance costs. We found that costs were indeed lower under check issuance than under coupon issuance. Overall, check issuance cost \$1.03 per case-month, or about one-half the cost of coupon issuance, which was \$2.05 per case-month. Columns A and B of Table 7 show that issuance costs incurred at the federal level (\$0.51 per case-month under coupon issuance) were eliminated under check issuance. Issuance costs incurred at the county and state levels were \$1.54 per case-month under coupon issuance, but were only \$1.03 per case-month under check issuance. The federal government pays 100 percent of issuance costs incurred at the federal level, as well as 50 percent of the costs incurred at the county and state levels. This allocation of responsibility for the payment of issuance costs is reflected in Columns C-E of Table 7, which show that three-quarters of the savings in issuance costs resulting from cash-out accrued to the federal government and one-quarter accrued to the state government.

Benefit losses. Food stamp cash-out in Alabama virtually eliminated several types of benefit losses that had been borne by either the state or the federal government under coupon issuance. However, these types of losses are quite small under coupon issuance, thus precluding the possibility that cash-out might achieve substantial cost savings in this area.

One type of loss, losses and thefts in the mail, increased significantly under cash-out. This increase was due largely to the increased use of mail issuance under the demonstration. Under coupon issuance in Alabama, most issuances are made on an over-the-counter basis, which is a relatively secure (although expensive) form of issuance. The mail issuance of coupons is generally restricted to small benefit amounts. Under cash-out, food stamp benefit checks were sent to program participants through the mail, an issuance mode that is substantially more vulnerable to losses. Costs resulting from checks being lost or stolen in the mail and then fraudulently cashed averaged \$0.14 per case-month under cash-out. Because the average mailed benefit amount is substantially lower under coupon issuance than under check issuance, the mail loss of benefits is much lower (\$0.05 per mail-issuance case-month) under coupon issuance than under check issuance. This difference should not be interpreted as evidence that coupons are more secure than checks when issued through the mail.

Overall, the analysis implies that issuance-system vulnerabilities increased as a result of cash-out. This increase occurred primarily because of the issuance of food stamp checks by mail, rather than because of the change in the form of benefit. Thus, the additional costs arising from the loss and theft of food stamp checks in the mail is less a cost of cash-out than it is of the change in the mode of delivering benefits to clients. The costs resulting from the loss and theft of benefit checks in the mail were borne by the third parties, such as banks and stores, that cashed the fraudulent checks. (Under the regular coupon-issuance system, the federal government bears the cost of replacing benefits that have been lost in the mail.)

TABLE 7

COUPON-ISSUANCE AND CHECK-ISSUANCE COSTS PER CASE-MONTH,
BY LEVEL OF GOVERNMENT AT WHICH COSTS ARE INCURRED AND PAID
(In Dollars)

	Costs Incurred		Costs Paid		
	Coupon Issuance (A)	Check Issuance (B)	Coupon Issuance (C)	Check Issuance (D)	Savings (E=C-D)
Federal Government	0.51	0.00	1.28	0.515	0.765
State/County Government	1.54	1.03	0.77	0.515	0.255
Total	2.05	1.03	2.05	1.030	1.020

SOURCE: Evaluation of the Alabama Food Stamp Cash-Out Demonstration.

NOTE: The amounts shown under "Costs Paid" reflect federal sharing of 50 percent of costs incurred at the state and county levels.

It is likely that losses borne by food stamp clients declined under cash-out, because the FSP replaced checks that were lost or stolen before being endorsed and cashed, whereas the FSP will not replace lost or stolen coupons. In addition, check recipients were less likely to be subject to possible overcharging of food stamp recipients by some food retailers.

CONCLUSIONS

The potential impact of cash-out on the ability of the FSP to target its benefits specifically to food has been a central component of the policy debate about the desirability of this policy alternative. Opponents of cash-out have been concerned that issuing benefits in the form of checks would greatly weaken the program's impact on food use, whereas proponents have felt that the purchase of food would remain a high priority for recipients, even without the specific linkage to food purchases provided by coupons. Proponents have also argued that cash-out would lower the cost of administering the FSP and the cost of benefit losses.

The evidence from the Alabama Food Stamp Cash-Out Demonstration indicates that, in Alabama, cash-out did not result in lower expenditures for food or in reductions in the amount of nutrients provided by food used at home. The differences between check and coupon recipients in the mean values of these and other outcome variables are 3 percent or less and are mixed in sign. For none of the major outcome variables are the check-coupon differences in mean values statistically significant.

The impact of cash-out on the cost of administering the FSP is also relevant in assessing this policy alternative. We found that the cost of issuing benefits was 50 percent lower under check issuance than under coupon issuance. Costs incurred at the combined county and state levels declined, while costs incurred at the federal level were eliminated. Considering federal sharing of costs incurred at the county and state levels, three-quarters of the savings from the reduced issuance costs accrued to the federal government, and one-quarter accrued to the state government.

The impact of cash-out on benefit losses is also an important policy issue. The costs to the federal and state governments from losses during the production, shipment, and storage of coupons, and from the overissuance of benefits, declined or were eliminated under cash-out. The costs to food stamp recipients associated with the theft and loss of coupons also declined or were eliminated. However, the greater security of checks was more than offset by a higher use of mail issuance, which is more vulnerable than over-the-counter issuance to loss, and by a higher average mailed benefit amount. These two factors resulted in an increase in the per-case-month cost of mail loss that exceeded the decrease in the per-case-month cost of other types of losses for which we have data. The increased cost of benefit loss was borne by third parties, such as banks and stores. Thus, under cash-out, the state and federal governments and food stamp recipients experienced reductions in costs associated with benefit losses, but third parties experienced increases in costs from such losses.

Finally, all of these results from the Alabama demonstration must be considered in light of the somewhat different findings obtained in evaluating the San Diego Food Stamp Cash-out Demonstration. In San Diego, cash-out was observed to have a small but statistically significant negative impact on the value of food purchased for home use and on several other outcome variables. (Administrative findings for San Diego are not yet available.) This finding suggests that the impacts of cash-out may depend on the context and way in which this alternative form of issuance is implemented.

VIII. INTRODUCTION TO VOLUME II

This volume is the second in a two-volume report on the evaluation of the Alabama Food Stamp Cash-Out Demonstration. Volume I, *Recipient Impacts*, focuses on the effects of cash-out on household food expenditures, food use, and nutrient availability. In addition, it considers a number of related issues, such as household experiences in running out of food, the attitudes of households toward cash-out, and the shifting of expenditures away from food to other goods and services. Volume II presents the administrative outcomes of the demonstration, covering the analysis of the implementation of the demonstration, and its effects on administrative costs and benefit losses. Volume II also presents the overall conclusions of the study and the appendices.

The form that benefits provided under the Food Stamp Program (FSP) should take has been an issue of long-standing debate. Supporters of the current issuance system argue that coupons are a direct and inexpensive way to ensure that food stamp benefits are used to purchase food and to minimize the unauthorized use of the benefits. Advocates of cash benefits argue that the coupon system is prone to abuse, limits the food-purchasing choices of recipients, places a stigma on program participation, and is cumbersome to administer. The need for research to better inform this policy debate has been recognized. Therefore, the Food and Nutrition Service (FNS) has in recent years approved four major demonstrations of the cashing-out of food stamp benefits. These demonstrations occurred, or are currently occurring, in Washington State, San Diego County, 12 "pure" cash-out counties in Alabama (the subject of this report), and 3 ASSETS counties in Alabama (in which households receive food stamps, Aid to Families with Dependent Children benefits, and energy assistance in one combined check). These sites vary substantially on a number of important dimensions, and the evaluations of these demonstrations are expected to shed light on a wide range of impacts of cash-out, in a variety of settings.

Volume I of this report presents findings that are based on data collected from approximately 1,200 households whose benefits were cashed-out, and from 1,200 households who continued to receive coupons during the Alabama Food Stamp Cash-Out Demonstration. The survey obtained detailed information on household composition and income receipt, and very extensive data on the foods used by each household during the week preceding the interview. In addition, respondents to the survey were asked about their attitudes toward and experiences with cash-out. To supplement the survey information, focus group discussions were held with FSP participants who had previously received their benefits as coupons, but whose benefit form had been converted to checks at the beginning of the demonstration.

This volume describes and documents the process of planning, implementing, and operating Alabama's Food Stamp Cash-Out Demonstration. Documenting the planning and implementation of the demonstration is important for two reasons. First, to facilitate our interpretation of the findings on the outcomes of the demonstration, we must understand the actual policy and procedural interventions that led to the observed outcomes. Second, if cash-out is ultimately implemented on a broader basis, the experience of Alabama officials in implementing cash-out can help officials in other localities who are planning for cash-out.

Volume II also presents estimates of the effects of cash-out on administrative costs of the FSP. Estimating the effects of cash-out on administrative costs, which are borne jointly by the state and federal governments, is important because a major impetus for cash-out is the belief that it will generate savings in this area. Administrative costs might be lower under cash-out because some steps in the coupon-issuance and redemption process are streamlined or eliminated under the cash-issuance system, thereby reducing costs to the federal and state governments. For example, under the check-issuance system, the costs to the federal government of printing coupons and shipping them to state agencies, and of authorizing and monitoring the participation of food retailers in the FSP, would be eliminated. In addition, several costs, which the state and federal governments share under

the current coupon system, would be eliminated or reduced; the costs of storing and transporting coupons would be eliminated, and the costs of issuing food stamp benefits to recipients would be substantially reduced due to the streamlined procedures for the preparation and mailing of benefit checks.

Another impetus for cash-out is the belief that it will reduce various forms of benefit loss, such as theft or loss during production, shipping, storage, or mailing; theft or loss of benefits after client receipt; and accidental overissuance. These types of loss lead to increased costs to the state and federal governments, and, hence, to taxpayers, as well. Volume II presents estimates of the impact of cash-out on such losses. Benefit loss might decline under cash-out, because cash issuance requires fewer steps and, consequently, provides fewer opportunities for theft and accidental overissuance. However, if, under cash-out, benefits are issued by mail rather than over-the-counter, losses might increase, because mail issuance is more vulnerable to loss.

Volume II also discusses other types of loss, which are borne by food stamp recipients, that might decline under cash-out. For example, food stamp checks that are lost or stolen after being received but before being cashed by the client can be replaced, whereas replacement coupons are not issued under similar circumstances. In addition, cash-out makes it more difficult to identify shoppers who are making purchases with food stamp benefits and, thus, it might reduce the possible overcharging of food stamp recipients by some food retailers.

Finally, Volume II discusses the overall conclusions of the study. It summarizes our findings on the impact of cash-out on recipients, including the differences between check and coupon recipients in the money value of food used at home, nutrient availability, perceptions of the adequacy of the household food supply, and household preferences about the form of the benefit. It also summarizes our findings on the impact of cash-out on administrative costs and benefit losses, as well as lessons learned from planning and implementing the demonstration.

This volume is organized as follows. Chapter IX describes the data and methods used in the analysis of administrative outcomes. Chapter X discusses the planning, implementation, and operation of the Alabama Food Stamp Cash-Out Demonstration. Chapter XI analyzes the impact of cash-out on administrative costs, and Chapter XII analyzes its impact on issuance-system loss. Finally, Chapter XIII presents the conclusions from the analysis of administrative outcomes, as well as overall conclusions from the study. Appendices present technical methodological discussions and supporting information about the demonstration.

IX. DATA AND METHODS FOR THE ANALYSIS OF ADMINISTRATIVE OUTCOMES

This chapter describes the data and analytic methods used in the analysis of the administrative outcomes of the Alabama Food Stamp Cash-Out Demonstration. For each component of the analysis, we discuss the research questions, the variables that we analyze, the data sources and collection methods, and the analytic techniques. Section A covers the analysis of the planning and implementation of the demonstration; Section B covers the analysis of administrative costs, as well as the planning and implementation costs; and Section C covers the analysis of benefit losses.

A. THE IMPLEMENTATION ANALYSIS

We present the implementation analysis in Chapter X. The objectives of the analysis are to describe the planning and implementation steps undertaken, examine what worked well and what was trouble-prone in terms of delays and unexpected drains on resources, and compare the coupon- and check-issuance procedures. (The data and methods used to estimate costs, including the planning and implementation costs and the administrative costs of coupon and check issuance, are covered in Section B.)

1. Research Questions

Key research questions associated with the implementation analysis include:

- What tasks were involved in planning and implementing the demonstration?
- What difficulties arose in planning and implementation? How were they resolved?
- What factors were most important in successfully implementing the demonstration?
- How did the check-issuance procedures in the demonstration differ from the existing coupon-issuance procedures?

2. Data Collection and Analysis

The data sources for the implementation analysis are on-site and telephone interviews of county and state food stamp staff, and telephone interviews with representatives of advocacy groups.¹ The interviews were based on structured protocols to ensure that all of the salient information was obtained on a comparable basis from each interview respondent. Findings from the interviews were supplemented with information obtained from reports and other material, including Alabama Welfare Commission reports, Alabama's Administrative Procedures Act, and the Administrative Letters from the Commissioner of the Alabama Department of Human Resources (DHR) to the county DHR directors describing the cash-out demonstration and various procedures for its operation.

Our analysis yields largely narrative descriptions of the planning and implementation processes and the issuance procedures. We present a tabular comparison of the functions and tasks for food stamp issuance under the coupon- and check-issuance systems.

a. County Interviews

We conducted interviews with county-level staff during site visits to eight demonstration county food stamp offices in June and July of 1990, including the two urban cash-out counties (Jefferson and Montgomery) and six rural counties (Clay, Conecuh, Dale, Dekalb, Fayette, and Lauderdale).² In each office, we interviewed an issuance receptionist and/or cashier, and the program director and/or issuance supervisor; in most offices, we also interviewed certification and/or eligibility workers.³ In

¹In addition to obtaining information on the planning and implementation of cash-out, we used the interviews with county and state staff to obtain data on the administrative costs of coupon and cash issuance, the costs of implementing the cash-out demonstration, and the impact of cash-out on the vulnerabilities of benefits to losses, described in Sections B and C.

²Four rural cash-out counties--Choctaw, Dallas, Marion, and Pickens--were not visited. On the basis of the site visits to the other six rural cash-out counties, we judged that issuance procedures varied only slightly among the rural counties, and that findings from the six visited rural counties could be generalized to the four unvisited counties.

³In Alabama, "certification worker" refers to caseworkers who handle food stamp applications, and "eligibility worker" refers to caseworkers who handle Aid to Families with Dependent Children
(continued...)

these interviews, we obtained information on the activities associated with the implementation of cash-out, such as the training of staff and the testing of automated procedures, as well as coupon- and check-issuance procedures. In addition to the on-site interviews, we conducted follow-up telephone interviews with county staff in November of 1990 in order to obtain additional information on problem resolution and on the staff's experience with cash-out in the first six months of the demonstration.

b. State Interviews

At the state level, we interviewed staff during June of 1990 in the Food Stamp Division, Information Systems Division, and Data Systems Management Division of the DHR. These staff described the origin of the demonstration, the timing of planning and implementation activities, the gains expected from cash-out, problems that had to be resolved, the garnering of support for food stamp cash-out in Alabama, and the costs associated with implementing the cash-out demonstration.

c. Interviews with Advocacy Groups and Trade Organizations

To obtain a variety of viewpoints on the cash-out demonstration, in November of 1990, we interviewed representatives of the Alabama Legal Services Corporation, the Alabama Retail Merchants Association, and the Alabama Coalition Against Hunger. The purpose of the interviews with advocacy groups was to discuss their roles in the implementation of cash-out, their support or opposition to cash-out, the reasons for their support or opposition, their perceptions of the advantages and disadvantages of cash-out for food stamp recipients and for the Food Stamp Program (FSP), and their constituencies' experiences with cash-out.

³(...continued)

(AFDC) applications, including joint AFDC and food stamp applications. Thus, the certification workers resolve food stamp issuance problems for households receiving food stamps but not receiving AFDC, and the eligibility workers resolve food stamp issuance problems for households receiving both food stamps and AFDC.

B. THE ANALYSIS OF ADMINISTRATIVE COSTS

We present the analysis of administrative costs in Chapter XI. The objectives of the analysis are to document and compare the state and federal costs of issuing food stamp benefits by coupon and by check, as well as to estimate the costs of implementing the cash-out demonstration. We identified two hypotheses to be tested in the study of administrative costs. The first is that reduced issuance costs at the county level more than offset higher costs at the state level, to produce a net savings associated with check-issuance relative to coupon-issuance. The second is that the total federal costs of administering the FSP are lower under the check-based system than under the coupon-based system.

1. Research Questions

Key research questions associated with the analysis of administrative costs include:

- What are the costs of issuing coupons and issuing checks, by level of government at which they are incurred?
- Does switching from coupons to checks reduce benefit-issuance costs?
- What are the amounts of these savings, by issuance function?
- To the extent that check issuance reduces costs, what savings accrue to the state and local levels, and what savings accrue to the federal government?
- What were the costs (for example, labor and fringe benefits) for check-issuance system design, development, and implementation for the Alabama Cash-Out Demonstration?

2. Data Collection and Analysis

The sources for the issuance cost data are on-site interviews with county FSP staff, described in Section A.2; a mail survey of certification and eligibility workers about issuance problems; on-site interviews with state FSP staff; and federal cost estimates provided by Kirlin et al. (1990).

a. County Interviews

In the interviews with county staff during June and July of 1990, we obtained detailed information on the procedures for over-the-counter and mail issuance of coupon benefits, including the time spent by each staff member and the nonlabor resources used in both types of issuance.

b. Mail Survey

In November of 1990, we conducted a mail survey of eligibility and certification workers. This survey contained questions about workers' experiences with check-issuance problems during the demonstration, including questions about the types of problems encountered, how those problems were resolved, and how much time was spent resolving the problems. The one-page instrument was sent to each of the 87 certification and eligibility workers in the 12 demonstration counties who had dealt with one or more check-issuance problems. It specifically requested information on each of the 152 check-issuance problems that were officially recorded during the period of May through October of 1990.⁴ Appendix L contains a copy of the instrument.

c. State Interviews

To obtain estimates of implementation and issuance costs at the state level, we interviewed staff in the following offices during June of 1990:

- DHR's Information Systems Division, which designed and tested the software for the demonstration, oversaw the computer processing for check issuance, and produced computer reports on food stamp check and coupon issuances
- DHR's Data Systems Management Division, which ran the computer programs to generate files of participants and benefit amounts for the mail issuance of checks
- The Comptroller's Office, which used the files generated by the Data Systems Management Division to produce the checks

⁴The response rate was 100 percent. For the certification and eligibility workers who were unavailable or unable to respond, the supervisors obtained the necessary information and completed the survey instrument.

- The Treasurer's Office, which received, reconciled, and maintained the canceled food stamp checks
- The Food Stamp Accounting Office within DHR's Fiscal Administration Division, which oversaw and monitored the check-issuance system and processed food stamp checks returned in the mail, and which aggregates and reports coupon- and check-issuance data for the Food and Nutrition Service and handles the authorization, storage, delivery, reconciliation, and monitoring of coupons

d. Data Analysis

The interviews with state- and county-level staff obtained information on the amount of time spent by each staff person on coupon issuance and on check issuance. We computed labor costs by multiplying the amount of time that each staff person spent on issuance tasks by the wage and fringe benefit rates specific to the positions occupied by those persons. From knowledgeable county-level and state-level staff, we also obtained information about the nonlabor costs of benefit issuance, such as postage, storage, transportation, security, and insurance. For federal costs, we updated the 1988 estimates provided by Kirlin et al. (1990) to 1990 by using the fixed-weight price index.⁵ To obtain total costs of issuance, we added together all relevant labor and nonlabor costs.

We examined issuance costs on a "per-case-month" basis, which is a common means of comparison for FSP costs (see, for example, Abt Associates, Inc., 1987). Per-case-month costs are obtained by dividing a monthly cost by the monthly food stamp caseload; thus, we can compare costs for caseloads of different sizes. Appendix M presents a more detailed discussion of the methods that we used to estimate issuance costs.

Similarly, to estimate the costs of implementing the Alabama Cash-Out Demonstration, we computed the labor and nonlabor costs of planning for the demonstration, developing the software and the procedures for operating cash-out, and training the staff. These costs were added together to produce a total estimated implementation cost.

⁵From 1988 to 1990, according to the *Survey of Current Business*, 1990 and 1991, the fixed-weight price index for federal nondefense purchases of goods and services increased 8.1 percent.

C. THE ANALYSIS OF BENEFIT LOSSES

We present the analysis of benefit losses in Chapter XII. Benefit losses result from theft during production, shipping, storage, or mailing, or from clients after receipt; overissuance; and the use of benefits in an unintended manner, such as selling coupons for cash (trafficking), purchasing ineligible items, or spending cash change from coupon purchases on ineligible items. The objective of the analysis of benefit losses is to compare the amount of loss under coupon issuance and check issuance, both as a percentage of total issuance and on a dollars-per-case-month basis. We make comparisons within categories of vulnerabilities. In addition, we report in a narrative format findings from discussions with food stamp workers and clients about the impact of check issuance on losses.

1. Research Questions

Key research questions associated with the analysis of the effect on losses include:

- Does switching from coupon issuance to check issuance reduce the incidence or the amount of benefit loss?
- To the extent that benefit losses are reduced, what specific areas of system vulnerability are reduced?
- Did any new forms of fraud emerge under cash-out?

2. Data Collection and Analysis

The primary sources of information on coupon benefits that are lost or stolen in the mail and on benefits that are lost from coupon inventories are the monthly FNS-46 and FNS-250 reports and the quarterly FNS-259 report, which are submitted by each Alabama county to the state Food Stamp Accounting Office. We obtained copies of these reports from the Food Stamp Accounting Office. We obtained corresponding information on check issuance from the FNS-46 and FNS-250 reports and supplemented the information with data compiled by the state Food Stamp Division.

Direct data on the other sources of benefit loss in Alabama are not available; however, we obtained limited information from the interviews with food stamp staff, described in Section A.2, and from the focus group discussions with clients, described by Mazur and Ciemnecki (1991).

We present tables comparing (1) the vulnerabilities to loss under coupon and check issuance, (2) the average monthly value of overissuance and loss from coupon inventories in the demonstration counties during the demonstration period (May through December of 1990), and (3) mail losses under coupon and check issuance in the demonstration counties during the demonstration period. We also examine who bore the losses, and how that changed under cash-out. Finally, we present a narrative discussion of the loss of benefits after client receipt.

X. THE PLANNING, IMPLEMENTATION, AND OPERATION OF ALABAMA'S FOOD STAMP CASH-OUT DEMONSTRATION

This chapter describes the process of planning and implementing Alabama's cash-out demonstration, and the operation of Alabama's coupon-issuance and check-issuance systems. The data sources include on-site and telephone interviews of county-level and state-level food stamp staff, telephone interviews with representatives of advocacy groups, and documents produced by state staff. (We describe the interviews with county-level and state-level food stamp staff in greater detail in Chapter IX.) Analyzing the process of planning, implementing, and operating cash-out in Alabama aids in understanding the impact of the demonstration on recipient behavior, administrative costs, and losses. The process analysis also aids in assessing the degree to which the Alabama experience can be generalized, and the potential use of the demonstration experience in future federal policy development.

The next section of this chapter discusses planning for cash-out. Section B covers its implementation, and Section C describes operational differences between the coupon- and check-issuance systems in Alabama.

A. PLANNING FOR CASH-OUT

Food stamp cash-out in Alabama has been closely tied to other welfare reform plans. The idea for the Alabama cash-out demonstration arose from the welfare reform efforts of the 1980s, spurred by federal encouragement of state initiatives to make the welfare system more effective and efficient.

This section describes the origin of the demonstration, the timing of planning activities, the potential gains that were the impetus for cash-out, problems that had to be resolved, and the garnering of support for food stamp cash-out in Alabama.

1. The Origin of the Alabama Cash-Out Demonstration

The roots of Alabama's cash-out demonstration lie in calls for welfare reform that had been made by the Republican candidate, Guy Hunt, during the 1986 Alabama gubernatorial campaign. Hunt, who became Alabama's first Republican governor in 125 years, campaigned with a promise to reform welfare and to "put people to work." At a meeting of the state Board of Human Resources in March of 1987, shortly after taking office, Governor Hunt reaffirmed his interest in welfare reform.¹ That autumn, the Governor appointed a Welfare Reform Commission to study welfare in Alabama and to make recommendations for its reform.

In Alabama, state welfare activities are the responsibility of the Department of Human Resources (DHR). The commissioner of DHR during the development and implementation of cash-out was Andrew P. Hornsby, Jr. Governor Hunt placed responsibility for the coordination of his welfare reform initiative in the hands of Commissioner Hornsby, who acted quickly. In the spring of 1987, Commissioner Hornsby called a meeting of the entire staff of DHR and began laying the groundwork for reforming Alabama's welfare system by promoting the ideas of combining welfare programs and of providing food stamp benefits in the form of checks, rather than coupons.

Concurrently, support for welfare reform was coming from the federal level. In July of 1987, President Reagan appointed an interagency Low Income Opportunity Board (LIOB) to coordinate reviews of public assistance policies, accelerate efforts to make the welfare system more effective, and encourage state welfare reform demonstrations. The LIOB played a facilitating role by reviewing state proposals for welfare demonstrations and by helping the states to obtain the necessary program regulation waivers from specific federal agencies, such as the Department of Health and Human Services and the USDA.

Several states and counties had approached the LIOB with ideas for modifying their food stamp operations. In 1988, San Diego County, California, proposed cashing out its entire food stamp

¹Members of the Board of Human Resources are appointed by and represent the county welfare boards.

caseload. Officials at FNS were concerned that, because California's Aid to Families with Dependent Children (AFDC) payments are relatively generous, and the average food stamp benefit is, consequently, relatively small, examining cash-out only in California could lead to misleading results about the impacts of cash-out on food purchases made by program participants.

When Alabama, a state with relatively low AFDC payments, went to the LIOB with a welfare reform proposal to combine welfare programs, officials in the United States Department of Agriculture (USDA) conceived of the idea of a "pure" food stamp cash-out demonstration in that state. John Bode, Assistant Secretary for Food and Consumer Services, USDA, opened discussions with Commissioner Hornsby, the outcome of which was an agreement that FNS would support Alabama's welfare reform demonstration if Alabama would also conduct a pure food stamp cash-out demonstration. The two Alabama demonstrations came to be known as "ASSETS" (Avenues of Self Sufficiency through Employment Training) and "pure cash-out." In the ASSETS Demonstration, AFDC, food stamps, and the Low Income Home Energy Assistance Program (LIHEAP) were merged into a single program on a county-wide basis in three counties; thus, food stamp cash-out was one component of ASSETS. In the pure cash-out demonstration, which had no broader welfare reform objectives, food stamp benefits were provided as checks for a small sample of food stamp recipients in selected non-ASSETS counties. Many of the planning and implementation activities for the two demonstrations were performed jointly, in particular, the extensive development of the necessary computer software. Garnering support among staff, clients, and the public was also a joint effort.

The Public Assistance Division of Alabama's DHR designed and implemented ASSETS, whereas the Food Stamp Division handled cash-out, when the planning and implementation of cash-out were separate from ASSETS. Both divisions report to the DHR Deputy Commissioner for Programs, who reported directly to DHR's Commissioner Hornsby. The Food Stamp Division is responsible for food stamp policy, consultation, training, and certification; food stamp employment and training programs

are handled by the Public Assistance Division. Figure X.1 shows an organization chart of the Alabama DHR, and Figure X.2 shows an organization chart of the Food Stamp Division.

2. The Nature and Timing of Planning Activities

Alabama's Welfare Reform Commission began meeting in late 1987. The Commission, which was chaired by David Owens, the Director of the Public Assistance Division of DHR, was comprised of representatives of advocacy groups, clients, social welfare agencies, state officials, business and industry, and churches, as well as other concerned persons. In April of 1988, the Commission published a report entitled *The Alabama Welfare Reform Vision: A Report to the Governor*. This report described Alabama's welfare system, pointed out its weaknesses, and advocated a demonstration that would merge AFDC, food stamps, and LIHEAP into a single program. In this context, the report recommended cashing out food stamps, stating that:

" . . . providing assistance to clients in the form of in-kind benefits such as food stamps overtly implies that they cannot independently manage their own lives and household budgets. Providing merged benefits in the form of cash assistance to meet basic needs stresses independence skills."

The report also described and suggested strategies for eliminating long-term welfare dependency. These strategies included improved child-support enforcement, comprehensive employment and training programs, statewide public awareness campaigns to inform people about poverty in Alabama and to obtain support for funding and legislative programs, and encouragement of county initiatives and demonstrations. Governor Hunt publicly expressed support for the Commission's proposals.

In September of 1988, the Commission issued a second, shorter report, entitled *Welfare in Alabama and the Need for Change*. This report highlighted the findings and recommendations of the earlier report and included photographs showing the living conditions of welfare recipients in Alabama. Both reports called for welfare reform demonstrations that would be comprehensively evaluated and, if unsuccessful in improving the welfare system, discontinued.

FIGURE X.1
ALABAMA DEPARTMENT OF HUMAN RESOURCES

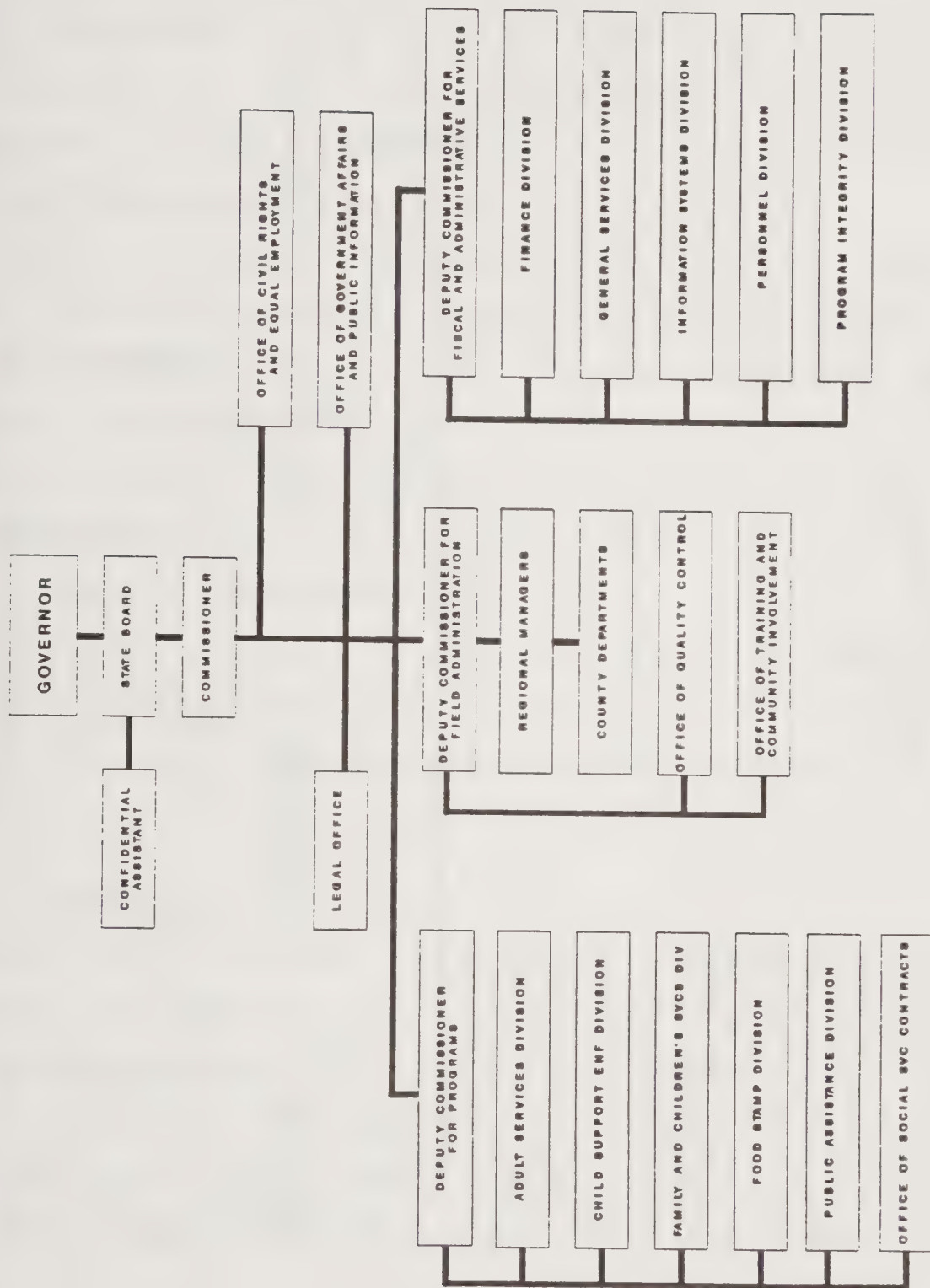
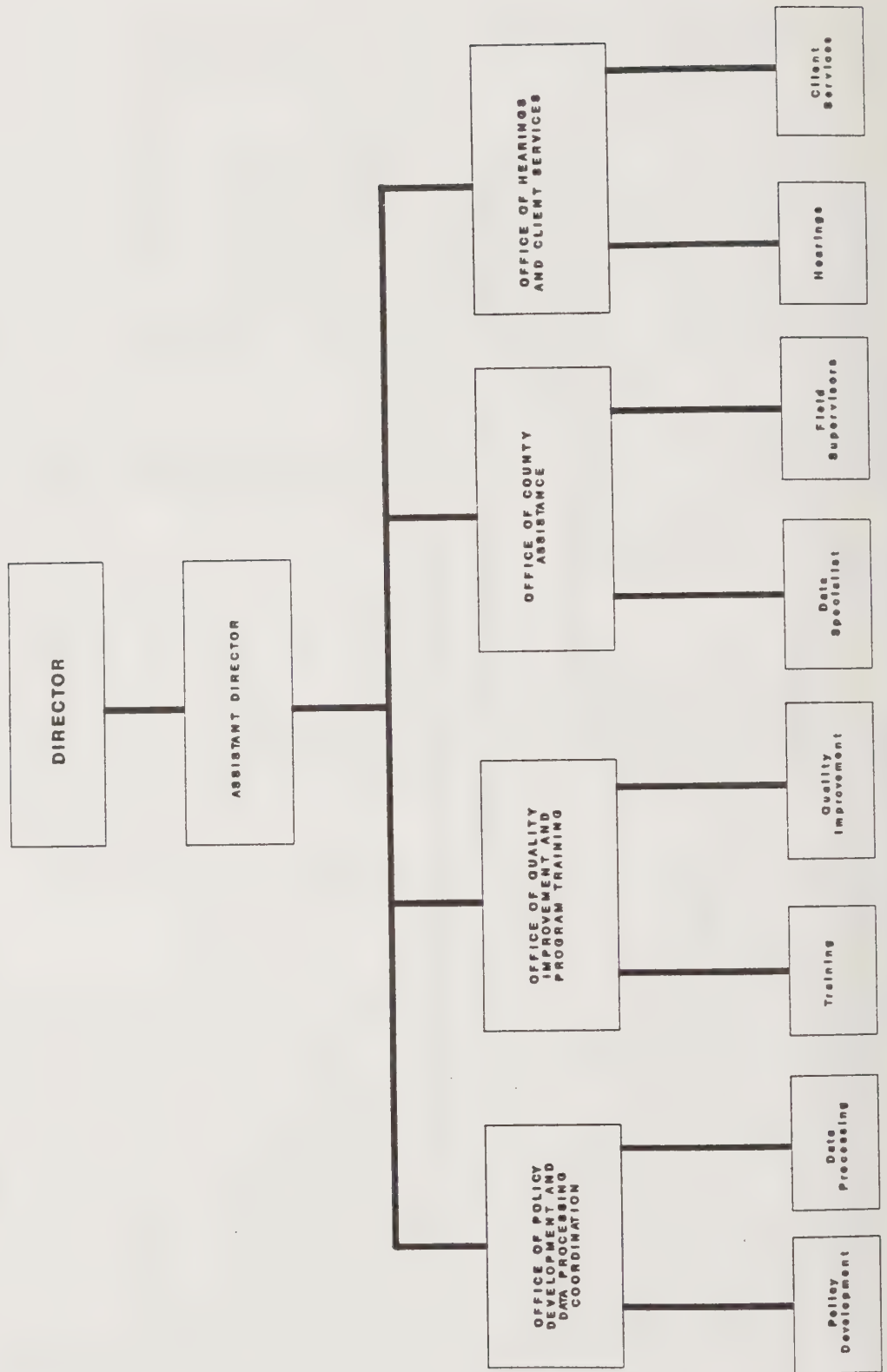


FIGURE X.2
FOOD STAMP DIVISION



Alabama worked closely with FNS to lay the groundwork for the food stamp components of both the ASSETS and the pure cash-out demonstrations. FNS and DHR staff met in Montgomery in the summer of 1988; as an outcome of that meeting, Alabama officially proposed a pure cash-out demonstration to FNS. FNS approved the demonstration and agreed to pay 100 percent of the evaluation costs and to prepare the waiver materials.

Alabama staff recognized early in the planning process that the automation aspects of ASSETS and cash-out would be major challenges in implementing the two demonstrations. Therefore, an automation committee was formed, consisting of the DHR Cash-Out Project Manager, the Acting Director of the Food Stamp Division, a staff member from the Office of County Assistance of the Food Stamp Division, and a systems analyst consultant who was hired to develop the software for ASSETS and cash-out. The automation committee played an active role in developing and implementing cash-out's software and automated procedures.

Another planning activity for cash-out was the formal revision of the state's administrative regulations governing food stamps. Food stamp issuance procedures are spelled out in Alabama's Administrative Procedures Act. Before cash-out could be implemented, the act had to be revised to allow for the issuance of state warrants, rather than coupons, for the cash-out households.

3. Key Issues

Several issues had to be resolved before the food stamp cash-out demonstration could be implemented in Alabama. A major problem concerned state and local sales taxes on grocery items. Alabama imposes a 4 percent tax on grocery sales, and counties and municipalities impose additional sales taxes ranging from 2 percent to 4 percent. By federal law, purchases made with food stamps are exempt from these taxes, but those made with check benefits (because they are cash purchases) are taxed. To offset the sales tax, DHR increased the amount of each food stamp check by 7

percent.² DHR's budget was the source of funding for the benefit increase; however, all taxes collected as a consequence of purchases made by check recipients went into the state's general operating fund or to local governments. This treatment of sales taxes heightened DHR's sensitivity to the scale and duration of the cash-out demonstration.

Another issue that was not a problem under coupon issuance involved the funding of check benefits, that is, how the Food Stamp Program (FSP) would repay Alabama for the food stamp benefits that were paid to clients in the form of state vouchers. This issue was resolved through the use of letters of credit, by which the FNS Southeast Regional Office in Atlanta electronically credited the State of Alabama's bank account.

Concern that clients would have difficulty cashing the food stamp checks arose when a representative of a major Alabama grocery chain raised the possibility of grocery stores charging fees to cover their administrative costs of cashing checks, especially the cost of accepting checks with fraudulent client signatures. However, state food stamp staff informed the retailers that clients would be required to present a second piece of identification, in addition to the food stamp identification card, so that retailers would be able to compare signatures and prevent the fraudulent use of benefits.

4. Garnering the Support of Staff, Clients, and Other Groups

Given the widespread acceptance of food benefits in the form of coupons, Commissioner Hornsby and others interested in welfare reform knew that a great deal of public education would be required to build support for cash-out. Consequently, the state began to undertake a large public relations effort. When Commissioner Hornsby first came to DHR, he advocated that a cash-out demonstration be conducted on a small scale. He told the county DHR directors that both welfare reform and some form of cash-out were going to be implemented, and he instructed the directors to

²Initially, DHR had proposed to augment food stamp benefit amounts by 6 percent to offset the sales tax, because the statewide average of cumulative state and local sales tax rates was 6 percent. However, in some counties the cumulative sales tax rate was higher (in Montgomery County, it was 8 percent). Ultimately, DHR adopted a 7 percent sales tax offset.

build local support for both ideas. Accordingly, during the winter of 1988, in ten of the state's most populous counties, the county DHR directors held legislative hearings that were open to all persons interested in the state's welfare system. Increased political support for welfare reform and cash-out, as well as for an increase in AFDC benefits, resulted from the meetings. In addition, Commissioner Hornsby held a hearing for state legislators on the issues of welfare reform and cash-out. Subsequently, the legislators enacted legislation that increased the state's budget for AFDC by 5 percent.

Enlisting the support of county-level food stamp staff was crucial in implementing any welfare reform. The Acting Director of the Food Stamp Division, Terrie Reid, attended a meeting of the Alabama Association of Food Stamp Supervisors and Administrators to explain cash-out and ASSETS and to enlist support for these programs. She suggested that they maintain records of comments and feedback from clients, food retailers, and the community about these welfare reform initiatives.

Federal regulations preclude that cash food benefits be counted as income for the purpose of determining eligibility for such means-tested public assistance as public housing. Before cash-out was implemented, DHR sponsored a statewide meeting of approximately 100 officials who operated public housing programs in Alabama, during which cash-out and the exclusion of check benefits from the counting of income were explained. Several members of that group subsequently met in Montgomery with staff from the Food Stamp and Public Assistance Divisions to obtain additional information on cash-out and ASSETS.

Retail food merchants opposed cash-out. Charles McDonald, the Executive Director of the Alabama Retail Merchants Association, was appointed to the Welfare Reform Commission in order to obtain his involvement and support for cash-out. Commissioner Hornsby and the Directors of the Food Stamp and Public Assistance Divisions met with the association late in 1989, at which time the retailers expressed cautious support for the Commissioner, but also expressed serious reservations about cash-out. Their main objection was their fear that check recipients would use check benefits

to buy nonfood items, and that, as a result, grocery retailers would lose business. After this meeting, but before cash-out was implemented, a large informational meeting was held in Huntsville (which is in Madison County, one of the three ASSETS counties) for retailers who accepted food stamps. During that meeting, the retailers expressed their reservations, and Commissioner Hornsby argued his case. In addition, in response to the request of the Retail Merchants Association for information, DHR sent the association a supply of brochures providing information on ASSETS and cash-out. In the words of Acting Food Stamp Division Director Terrie Reid, "So much groundwork was laid with the retailers that when cash-out finally happened, it was anti-climactic" (interview in Montgomery, Alabama, on June 20, 1990).

Two advocacy groups for low-income persons, the Alabama Coalition Against Hunger and the Alabama Legal Services Corporation, also expressed opposition to cash-out, but for reasons very different from those of the retailers. The groups' first concern was that financial pressures on food stamp recipients would make it extremely difficult for the recipients to use the check benefits to purchase food only. The groups felt that Alabama's low AFDC benefits exacerbated the financial pressures, because low AFDC benefits mean that food benefits constitute a large proportion of the total income of many food stamp recipients. The groups also felt that the pressures were exacerbated by the scarcity of public housing, which increases the pressure on food stamp recipients to use their food benefits to cover housing costs. The Alabama Coalition Against Hunger and the Alabama Legal Services Corporation were also concerned about the possible exploitation of recipients of food stamp checks. For example, landlords might raise rents if they knew that their tenants had more cash available, or sales people might pressure check recipients to spend their benefits on nonfood items. The position of the Alabama Coalition Against Hunger was that cash-out is not a bad idea in theory, but that, before cashing out food stamps, the state should increase its maximum AFDC grants to the average of the East South Central states and should institute a General Assistance (GA) program. The coalition felt that these changes would reduce the likelihood of cash food benefits being spent

on nonfood items. The coalition was also concerned that full cash-out of Alabama's food stamp caseload would mask the inadequacy of the state's welfare system, and would make it more difficult for advocacy groups to lobby the legislature to increase maximum AFDC grants or to implement GA. The coalition reported that its food stamp clients were opposed to cash-out because of concerns about how other food stamp recipients might spend their check benefits.

The second concern was that food assistance in the form of check benefits would be controversial and politically vulnerable, whereas coupons had strong Congressional and public support. Legal Services Director Larry Gardella expressed concern that food stamp benefits in the form of checks would be much more likely to be "tampered with" by the Congress. The groups also were concerned about any change in the basic structure of the FSP. In the words of Carol Gundlach, of the Alabama Coalition Against Hunger (telephone interview, November 14, 1990):

"I have fears that we're looking at a defederalization of the Food Stamp Program. What scares me is that we may end up with fifty different Food Stamp Programs; the program's strength is its consistency across all the states. Cash-out gives too much control in setting policy to states who won't build in the protections the Food Stamp Program has built in."

B. IMPLEMENTATION OF CASH-OUT

Cash-out required major efforts to develop the automated system and procedures. However, the human aspects of implementation (training staff and notifying clients) were also important. This section describes the implementation and evaluation schedule, the design of procedures and systems, the training of staff, the notification of clients, the reactions of staff, and the lessons learned.

1. The Implementation and Evaluation Schedule

The original schedule for the pure food stamp cash-out demonstration accommodated the data collection requirements of the demonstration evaluation while recognizing the need of DHR to limit its cost of the demonstration and to coordinate the pure cash-out and ASSETS demonstrations. The schedule called for pure cash-out to be conducted in three consecutive, four-month phases in calendar

year 1990. Phase One (initial implementation) was scheduled to begin in January with the issuance of checks to approximately 1,850 randomly selected households in two urban and ten rural counties. Phase Two (data collection) was to begin in May and to end in August, thus giving check recipients four to eight months to adjust their consumption behavior to the new form of benefits before being interviewed. During this phase, detailed data on food use over a one-week period were to be collected from 1,200 randomly selected check recipients and 1,200 randomly selected coupon recipients. Phase Three (demonstration close-down) was to begin with the completion of data collection and to continue through the end of the year.

Two delays in the implementation of the demonstration necessitated that the period of check issuance be reduced from the planned 12 months to 8 months. Pure cash-out had always been closely linked to the ASSETS Demonstration. By December of 1989, it had become apparent that the design of ASSETS, most notably the design of the check-issuance software, was behind schedule. Consequently, DHR decided to delay the start of ASSETS by three months. Because the pure cash-out demonstration and ASSETS required essentially the same software, DHR also chose to delay the cash-out demonstration until April of 1990. By March of 1990, the check-issuance software was available, but had not been tested fully; therefore, DHR chose to delay the start of pure cash-out by one additional month.

DHR and FNS agreed to accommodate the delays in the implementation of cash-out, but to maintain the original calendar year 1990 time frame for the demonstration, by reducing the duration of each of the three phases of the demonstration. According to the revised schedule, Phase One was to last three months, Phase Two was to last three and one-half months, and Phase Three was to last one and one-half months.

The revised schedule satisfied FNS's three principal requirements for the timing of the demonstration, which were as follows:

1. Phase One must be of sufficient duration to permit the food-use behavior of check recipients to stabilize in response to the new form of benefit. FNS considered three months to be the minimum acceptable duration of Phase One.
2. Phase Two must be of sufficient duration to permit food-use data to be collected from 2,400 households.
3. Household data collection must not extend into the Thanksgiving to New Year holiday period, when unusual food-use patterns are more likely to be reported.

In addition, the revised schedule was responsive to DHR's concern that it have sufficient time to provide check recipients with one month's advance notification of the reversion to coupon issuance. Furthermore, because the cash-out checks included 7 percent higher benefits as an offset to the sales tax on food, with the increase in funds coming from DHR's budget, the agency was anxious to minimize the number of months during which check issuances were made. The revised, eight-month schedule was responsive to the latter need.

The pure cash-out demonstration was successfully implemented according to the revised schedule. The issuance of food stamp benefits in the form of checks began on May 1, 1990, and ended on December 31, 1990. Household data collection began on August 3, 1990, and was completed on November 17, 1990.

2. Designing and Implementing Procedures and Systems

Writing the software programs to handle check issuances and working out the automated procedures for producing checks comprised the major part of the design of the cash-out system. The software for cash-out was taken from the check-writing system being developed for ASSETS, modified to handle food stamp cases only, and entered into Alabama's automated food stamp client data system, SCI-II (State and County Integrated System).

In SCI-II, 150 subroutines deal with food stamps. Each modification required by cash-out necessitated identifying which subroutines had to be modified, and then writing and testing the modifications. Both on-line processing programs and batch-payroll processing programs had to be modified. Some of the necessary modifications were: (1) changing the master file by modifying the existing issuance-type field to include check issuance, (2) changing the supplemental issuance and reconciliation procedures to include check-issuance cases, and (3) changing the case-information profile to provide separate listings for the coupon and check systems, so that separate totals could be obtained for the two types of issuance. Some problems, such as the sequencing of several activities (for example, designating an alternate payee when the original payee became incapacitated or died), were more complex under cash-out than under coupon issuance.

Once the software procedures were in place, the procedures for county-level workers were detailed in an Administrative Letter from Commissioner Hornsby to the county DHR directors. This letter described the cash-out demonstration and its evaluation; specified standards for certification, issuance, and benefit levels; and described the procedures for handling check-issuance problems (such as processing returned warrants, authorizing replacement warrants, and issuing special payments).

3. Interfacing with Other State Agencies

Cash-out also required interfaces with two state agencies (the Treasurer's and Comptroller's Offices) that had not been involved in food stamp issuance, and whose priorities sometimes differed from those of the Food Stamp Division. For example, a request was made to the Treasurer's Office to set up procedures allowing county workers to have on-line access to a file indicating whether, or when, a food stamp check had been cashed. However, this procedure was never set up. In addition, the Food Stamp Division had disagreements with the Comptroller's Office about the priority accorded to the issuance of food stamp checks; although the FSP requires that benefits be issued within a certain time frame, the Comptroller's Office occasionally scheduled non-food stamp functions before food stamp checks, thus delaying the issuance of the checks.

4. Staff Training

One DHR staff member was designated the Cash-Out Trainer and worked full time on cash-out, from January of 1990 through its phase-out. This member's duties included preparing training materials, conducting training sessions, and ensuring that all county staff were well prepared, so that the cash-out implementation would go smoothly. After implementation, the Cash-Out Trainer handled operational questions from the counties. County-level staff were trained on-site in some of the cash-out counties, as well as in Montgomery and Birmingham. A total of 350 county-level and state-level staff received training. County DHR directors, program supervisors, issuance supervisors, food stamp receptionists, food stamp cashiers, telephone receptionists, and clerical workers received training appropriate to their level of involvement with cash-out. In addition, state-level food stamp and finance administration staff received training. The training schedule was as follows:

- February 1990--orientation for county directors and program supervisors
- February 1990--on-site training about cash-out for county issuance staff
- March 1990--orientation for other county staff
- April 1990--update training for county staff
- April 1990--training for state staff
- May 1990--meeting of program supervisors about cash-out implementation

5. Notification of Clients

Once the initial sample of cash-out households was chosen, those households had to be notified about their selection. The county DHR offices sent letters to all cash-out households explaining cash-out and describing the checks that they would be receiving. An informational pamphlet was enclosed with the letters. Letters sent to the initial sample households and letters sent to the supplemental households (households added to the cash-out sample after the initial sample was drawn, to

compensate for attrition from the demonstration) contained basically the same information, but were worded slightly differently. Copies of the letters and of the pamphlet are shown in Appendix K.

6. Reactions of County Staff

County workers who were interviewed for the evaluation stated almost unanimously that cash-out implementation had gone smoothly, and that they and the clients had been well prepared. According to the workers, most clients liked check issuance, and a number of clients receiving coupons had expressed a desire to receive checks. Workers mentioned less stigma, more dignity and self-determination, and the convenience of mail issuance as advantages of check issuance to the clients. Most workers cited lower issuance costs as an advantage of cash-out to the FSP. Workers mentioned the possibility of clients using the check allotments to purchase nonfood items as both an advantage and a disadvantage. The advantage stemmed from the freedom to use the money to purchase nonfood items, when necessary; the disadvantage stemmed from the loss of budgeting assistance due to the constrained nature of coupons and, consequently, the higher likelihood that clients might run out of food. After cash-out was implemented, the county offices received very little feedback from the public, food retailers, or advocacy groups.

7. Lessons Learned

Developing the automated systems to handle check households and issue food stamp checks absorbed a large amount of resources and required more time than was originally anticipated. According to the consultant responsible for software development for ASSETS and pure cash-out, implementing two demonstration programs simultaneously should be avoided in the future, because the need to develop two related sets of software greatly increases the complexity of the development process. The consultant also suggested that all organizations participating in a demonstration be consulted before any software modifications are made; some modifications to the cash-out systems, which had been made before the evaluator of the pure cash-out demonstration was hired, had to be

changed to fit the needs of the evaluation, thus adding to the labor costs and time requirements of the systems' development efforts.

With the exception of the development of automated systems, cash-out implementation went very smoothly. A large factor in the ease with which cash-out was implemented was the training provided by DHR to its county and state staff. After implementation, the Cash-Out Trainer worked full-time to ensure that cash-out ran smoothly, which entailed being available to answer all questions from the county offices and serving as a liaison between food stamp staff and automated systems staff. Having a full-time person in that position appeared to be a key reason that implementation and operations went smoothly.

Another factor underlying the ease of implementation of cash-out was the extensive public relations effort conducted by DHR staff, which began at the earliest date possible. Commissioner Hornsby systematically laid the groundwork for cash-out by involving and informing all interested parties. He built support through personal contact and promotion of welfare reform among state workers, retailers, legislators, county DHR directors, and other concerned persons. Other DHR staff prepared the clients for cash-out and followed up on Commissioner Hornsby's campaign of educating other agencies and the public about cash benefits.

C. OPERATIONAL DIFFERENCES BETWEEN COUPON AND CHECK ISSUANCE IN ALABAMA

The procedures and resources required for coupon and check issuance differ substantially. Describing those differences provides a context for analyzing differences in issuance costs and the impact of cash-out on benefit losses and diversions. This section describes the administration of the FSP in Alabama, the procedures for coupon and check issuance, and the differences in the types of resources required for the two systems. Table X.1 gives an overview of the steps necessary to issue coupons, checks, or both forms of benefits.

TABLE X.1
FUNCTIONS AND TASKS FOR FOOD STAMP BENEFIT
ISSUANCE SYSTEMS IN ALABAMA

Function/Task	Coupons Only	Checks Only	Both Systems
Authorizing Recipient Access to Food Stamp Benefits			
Routine Authorization			
Create allotment file from food stamp client master file			X
Transmit or provide access to allotment listings to issuance sites			X
Nonroutine Authorization			
Initiate supplemental, expedited, or retroactive issuances			X
Initiate replacement issuances due to lost or stolen benefits			X
Other issuance authorization problems			X
Delivering Benefits to Recipients			
Coupon Production, Shipment, and Storage (Including Inventory Management/Monitoring and Security Tasks)	X		
Warrant Production		X	
Coupon/Warrant Delivery to Issuance Sites or Clients (Including Inventory Management/Monitoring and Security Tasks)			X
Coupon/Warrant Allotment Confirmation and Over-the-Counter or Mail Issuance (Both Routine Delivery and Nonroutine Delivery due to Lost or Stolen Coupons or Expedited Process Requirements; also Including Oversight/Management/Monitoring Tasks)			X
Crediting Retailers and Banks for Benefits Redeemed			
Retailers Count Coupons, Make Change, Endorse Coupons, and Complete Redemption Certificate	X		
Retailers Deposit Warrants in Bank Accounts		X	
Banks Verify Retailer Deposits, Count and Bundle Coupons, Complete Food Coupon Deposit Document, Send Deposit to Federal Reserve Bank	X		

TABLE X.1 (continued)

Function/Task	Coupons Only	Checks Only	Both Systems
Banks Verify Retailers' Deposits and Credit Accounts			X
Federal Reserve Bank Verifies Bank Deposits, Checks for Counterfeit Coupons, Destroys Coupons, Forwards Documents to USDA, Submits Debit Voucher to U.S. Treasury	X		
Federal Reserve Bank Verifies Banks' Deposits and Credits Accounts		X	
Managing Retailer Participation in the Food Stamp Program			
Authorize Retailers to Participate in FSP and Train Retail Staff about Program Regulations	X		
Input Data from Redemption Certificates and Food Coupon Deposit Documents and Produce Redemption Activity Reports	X		
Monitor Redemptions, Investigate Possible Violations, and Administer Sanctions	X		
Set Policy for Retailer Participation and Oversee Redemption System	X		
Monitoring and Reconciling Issuance			
Produce Inventory and Mail Loss Reports FNS-250 and FNS-259	X		
Produce Project Area Participation and Coupon Issuance Reports or Comparable Report on Check Issuance			X
Enter These Data and Maintain Data Bases			X
Set Issuance Policy and Monitor State Issuance Performance			X

SOURCE: Evaluation of the Alabama Food Stamp Cash-Out Demonstration.

USDA = U.S. Department of Agriculture; FSP = Food Stamp Program; FNS = Food and Nutrition Service.

1. Program Structure and Procedures

In Alabama, the FSP is administered by the state DHR. Each county has a DHR director, who oversees state welfare activities in that county. Both AFDC and food stamps are within the purview of the county DHR director, but are often housed in separate offices. Under the county DHR director, each food stamp office has a program supervisor for food stamps. The larger counties (for example, Jefferson and Montgomery) also have a supervisor in charge of food stamp issuance; the program supervisor serves that function in the smaller counties. Clients have initial caseworker contact with an eligibility worker (for those applying for both AFDC and food stamps) or a certification worker (for those applying for food stamps only). For most households, food stamp receptionists and cashiers issue the food stamp coupons; in smaller counties, one person performs both receptionist and cashier duties. In some counties, benefits are issued by mail to elderly or disabled clients who qualify for small amounts of benefits and who have inadequate access to transportation.³ The issuance procedures are fairly uniform among the rural county offices, although the urban offices show some variation.

2. Coupon-Issuance Procedures and Functions

Alabama uses a centralized automated client data system, SCI-II, to maintain data on food stamp recipients and the issuance of food stamp benefits. Each county office has on-line access to the SCI-II system and to the Income and Eligibility Verification System (IEVS), which is the front-end system that determines food stamp eligibility. A caseworker fills out the FSP client record (or turn-around-document [TAD]--Form 1139) during the application process, and a data management worker enters that information into IEVS. The system then determines the applicant's eligibility for food stamps and passes the information into SCI-II, where benefit amounts are determined.

³County FSP supervisors determine who will receive benefits by mail, on the basis of the federal regulations and each county's history of mail-issuance loss.

For most ongoing cases, recipients pick up food stamp coupons at the county food stamp offices on a monthly basis, usually during the first two weeks of the month. Households are assigned days of the month that mark the beginning of the period during which their coupons can be picked up. After arriving at the food stamp office on or after the assigned day, a client presents his or her FSP identification card to the issuance receptionist, who enters the client's identification number into the SCI-II system. Entering the identification number causes the client's record to be updated immediately with the new issuance data, and an authorization-to-participate (ATP) card is printed on a printer in the issuance office. The client signs the ATP card, and a cashier (who also might be the receptionist) checks the signature against the signature on the client's identification card and issues the coupons according to the specifications on the ATP card.

Issuance is by mail, rather than over-the-counter, for approximately 21 percent of the Alabama food stamp caseload. Mail issuance is done by the local offices after they receive a printout from the state listing the mail-issuance households; each county office has its own schedule for mail issuance, which, in most offices, includes the first working day of the month (when the cash-out checks were usually mailed). The procedure for mail issuance is as follows: the identification numbers are entered into SCI-II; the ATP cards are printed out; and the coupons are counted, inserted into envelopes with the ATP cards (which serve as mailing labels), and mailed.

Information on new cases, including those requiring expedited service and others, is entered into the SCI-II system daily. Expedited cases are usually "walked through" the application process by their certification workers and generally receive their coupons over-the-counter during the first month in order to ensure that the standard of promptness for expedited cases (requiring that they receive their coupons within five days) is met, even if they are switched to mail issuance subsequently. Mail-issuance coupons for new, nonexpedited cases are mailed on the next scheduled mailing day, which is usually the first working day of the following month. Clients who are new, nonexpedited cases for over-the-counter issuance can pick up their coupons on the next regularly scheduled, assigned

issuance day; that day may be the next working day, the first working day of the following month, or a day between the two.

Under the coupon-based system, the local offices count and reconcile the coupon books at the end of each day. The offices compile a total monthly aggregation at the end of each month. Two reports are prepared from the monthly reconciliation and monitoring: (1) the Food Coupon Accountability Report (FNS-250), which is used to report discrepancies between inventories of coupons and the amounts of coupons issued by project areas, and (2) the Food Stamp Mail Issuance Report (FNS-259), which is used to report the value of coupons that were replaced due to reported losses in the mail. On a quarterly basis, the Financial Status Report (FNS-269) reports expenditures for separate food stamp activities, such as certification, issuance, and automated data processing.⁴ These reporting and aggregating functions are performed by county-level staff, who reconcile the coupons and prepare the reports, and by state-level staff in the Food Stamp Accounting office of the Finance Division, who consolidate the county reports to meet federal reporting requirements.

3. Check-Issuance Procedures and Functions

In the pure cash-out demonstration, approximately 2,050 households received food stamp benefits each month in the form of a state warrant, which is a standard financial instrument redeemable for cash through any institution that normally cashes checks. Check issuance began at the county level, when a caseworker completed the TAD, and a data management worker entered the information into IEVS. IEVS was programmed to randomly assign clients to the cash-out sample on the basis of the sequential component of their food stamp case identification numbers. After the client information had been entered, the on-line SCI-II master record for that case and the printout of that record at the local office showed whether the client was assigned to receive check benefits.

⁴These reports do not specify the labor costs of staff who are involved in issuance but who do not actually handle coupons, such as receptionists, supervisors of cashiers, or security personnel. Therefore, these data were not adequate for evaluation purposes.

Every workday at 5 PM, when the county offices closed, the state's automated system in the Data Systems Management Division updated the SCI-II master food stamp file. The batch check-issuance tape was then built, and that tape was passed to the Comptroller's Office. Staff in the Comptroller's Office determined that funds were available to cover the checks on that tape, assigned warrant numbers, and printed warrants. Staff in the Comptroller's Office also performed quality control, ensuring that the checks were correctly signed, sealed, and printed.

A payroll register was printed out as part of the batch check-issuance job and was sent to Food Stamp Accounting in the Finance Division, where it was checked for correct dates and warrant numbers and was signed by two staff members. The signed payroll register was then taken to the Comptroller's Office, and the checks were released. On the first of the month, when most cash-out checks were issued, staff from DHR Office Services picked up the checks from the Comptroller's Office and mailed them. On other days of the month, when fewer than 200 checks (usually for expedited and supplemental issuances) were issued, the checks were picked up and mailed by staff from Food Stamp Accounting.

In general, food stamp warrants that were routinely received and cashed by clients were reconciled and stored in the Treasurer's Office, together with records pertaining to those warrants. An undelivered food stamp warrant that was returned in the mail was sent to Food Stamp Accounting, where staff entered information about it into SCI-II. Each county received off-line listings of the SCI-II data on any warrants that had been returned during the previous working day. A county certification or eligibility worker contacted each client whose warrant had been returned and determined whether the client was entitled to the warrant and the reason for the warrant's return. Workers then authorized the state office either to release the warrants or to void them.

Food Stamp Accounting staff also handled the reports on check issuance that were required by FNS. The check-issuance data were reported on the FNS-250 and FNS-269 reports, along with, but shown separately from, the coupon-issuance data.

If a warrant was received by a client, but was destroyed, lost, or stolen before it could be endorsed and cashed, a replacement warrant was issued to the client after the certification or eligibility worker authorized a replacement issuance; this procedure required that the client sign an affidavit stating that the household did not receive, sign, or cash the warrant. However, if a warrant was endorsed and cashed by the client, the state's policy was that it would not reimburse the client, should the money be lost or stolen.

XI. THE IMPACT OF ALABAMA'S FOOD STAMP CASH-OUT DEMONSTRATION ON ADMINISTRATIVE COSTS

A major impetus behind the interest in food stamp cash-out is an expected savings in administrative costs through the streamlining of issuance procedures. Switching to check issuance would eliminate many county-level and state-level issuance activities in systems such as Alabama's,¹ as well as the federal-level costs of authorizing and monitoring retailers, and printing and transporting coupons. However, some state-level costs would be created, such as check printing, production, issuance, and reconciliation costs. (See Chapter X for a description of the coupon-issuance and check-issuance procedures.) We found that costs were indeed lower under check issuance than under coupon issuance; overall, check-issuance costs were about one-half coupon-issuance costs.

In Section A, which comprises most of this chapter, we describe and compare the costs of coupon and check issuance. In Section B, we describe the costs of planning and implementing the cash-out demonstration. Appendix M details the methodology used to estimate issuance, planning, and implementation costs.

A. ISSUANCE COSTS

In this section, we discuss the tested hypotheses and present our research design for examining issuance costs. We then describe and compare county-, state-, and federal-level issuance costs under the coupon and the check systems.

1. Principal Hypotheses

We identified two hypotheses to be tested in the study of administrative costs. The first is that reduced issuance costs at the county level more than offset higher costs at the state level, to produce a net savings associated with check issuance as compared with coupon issuance. Potential areas of

¹Although incurred at the county or state level, one-half of the costs of these activities are paid by the federal government.

savings include storing and transporting coupons, delivering benefits, and monitoring and reporting on benefit issuance. Our second hypothesis is that total federal costs of administering the Food Stamp Program (FSP) are lower under the check-based system than under the coupon-based system. Although the Alabama demonstration was too small to have a perceptible effect on federal costs, a nationwide implementation of cash-out would eliminate some categories of federal costs and would substantially reduce others. For example, under cash-out, the FSP would no longer pay the costs of printing, storing, and transporting coupons to state agencies; authorizing and monitoring retail stores; and redeeming coupons through the Federal Reserve System.

The results of our research support both hypotheses. Substantial reductions in costs incurred at the county level more than offset higher costs incurred at the state level, and administrative costs incurred at the federal level were nearly eliminated, for an overall reduction in issuance costs of 50 percent under check issuance when compared with coupon issuance.

2. The Research Design for Examining Issuance Costs

The objectives of the research on issuance costs are to compare the costs of coupon and check issuance, and to calculate the changes in components of those costs when check benefits, rather than coupons, are issued. The comparisons are made both for total direct costs and for key components of those costs, such as labor, postage, and the time spent by certification and eligibility workers resolving issuance problems.

Throughout this chapter, "issuance costs" refers to the direct costs of issuing food stamp coupons or checks. The direct costs include direct labor costs and fringe benefits of issuance workers and their supervisors, and printing, storage, transportation, security, postage, and other costs. These costs could be readily obtained or clearly observed. Indirect or overhead costs (such as the costs of work space, utilities, and equipment, and the labor of persons not directly involved in issuance) are not included in our analyses. The state's Finance Division uses a complex cost-allocation plan for allocating indirect costs among the various functions and divisions, and it was unclear how the

formulas in that plan might be applied to the check-issuance process. Because overhead costs are not included in the analysis, the cost difference between coupon and check issuance might be understated; overhead costs might be lower under check issuance because the use of such resources as work space would probably be lower than under coupon issuance.

In all but the last part of this section (Section A), our discussion of food stamp benefit issuance costs is based upon the level of government (county, state, or federal) at which the costs are *incurred*. Due to federal cost sharing, 50 percent of issuance costs incurred at the county and state levels are actually *paid* by the federal government. The final part of this section examines issuance costs from the perspective of the level of government at which those costs are paid.

a. Data Collection

We obtained the issuance cost data from a variety of sources, including in-person and telephone interviews with state and county food stamp program staff, a mail survey of certification and eligibility workers about issuance problems, and program reports and documents.² At the state level, to obtain estimates of time and other resource costs of coupon and check issuance, we interviewed staff in the following offices:

- The Department of Human Resource's (DHR) Information Systems Division, which oversaw the computer processing for check issuance and produced computer reports on food stamp check and coupon issuance
- DHR's Data Systems Management Division, which ran the computer programs to generate files of participants and benefit amounts for the mail issuance of checks
- The Comptroller's Office, which used the files generated by the Data Systems Management Division to produce the checks

²In Alabama, "certification worker" refers to caseworkers who handle food stamp applications, and "eligibility worker" refers to caseworkers who handle Aid to Families with Dependent Children (AFDC) applications, including joint AFDC and food stamp applications. Thus, the certification workers resolve food stamp issuance problems for households receiving food stamps but not receiving AFDC, and the eligibility workers resolve food stamp issuance problems for households receiving both food stamps and AFDC.

- The Treasurer's Office, which received, reconciled, and maintained the canceled checks
- Food Stamp Accounting within DHR's Fiscal Administration Division, which oversaw and monitored the check-issuance system and processed food stamp checks returned in the mail; and which aggregates and reports coupon- and check-issuance data for FNS, and handles the authorization, storage, delivery, reconciliation, and monitoring of coupons

To obtain county-level administrative costs, we visited eight demonstration county food stamp offices in June and July of 1990, including the two urban cash-out counties (Jefferson and Montgomery) and six rural counties (Clay, Conecuh, Dale, Dekalb, Fayette, and Lauderdale). In each office, we interviewed an issuance receptionist and/or cashier, and the program director and/or issuance supervisor; in most offices, we also interviewed certification and/or eligibility workers. The purpose of the interviews was to obtain information on the implementation of the cash-out demonstration, the time and resource costs of coupon and check issuance, the impact of cash-out on recipients, the impact of cash-out on office operations, problem resolution, and the vulnerabilities of benefits to fraud and losses (which are covered in Chapter XII). In addition to the on-site interviews, we conducted follow-up telephone interviews with county staff in November of 1990 in order to obtain additional information on problem resolution and on the staff's experience with cash-out in the first six months of the demonstration's operation.

In November of 1990, we also conducted a mail survey of eligibility and certification workers. That survey contained questions about workers' experiences with check-issuance problems during the cash-out demonstration, including questions about the types of problems encountered, how those problems were resolved, and the time spent resolving the problems. The one-page instrument was sent to each of the 87 certification and eligibility workers in the 12 demonstration counties who had dealt with one or more check-issuance problems, and asked about each of the 152 check-issuance

problems that were officially recorded during the period of May 1990 through October 1990.³ The survey instrument is shown in Appendix L.

b. Analysis Methods

The interviews with state-level and county-level staff obtained information on the amount of time spent by each staff person on coupon issuance and on check issuance. We then computed labor costs by multiplying the amount of time that each staff person spent on issuance tasks by the wage and fringe-benefit rates for that position. From relevant county-level and state-level staff, we also obtained information about the nonlabor costs of benefit issuance, such as postage, storage, transportation, security, and insurance. We examined costs on a "per-case-month" basis, which is a common means of comparison for FSP costs. Because per-case-month costs are obtained by dividing a monthly cost by the monthly food stamp caseload, we can compare costs for caseloads of different sizes.

3. Issuance Costs Under the Coupon System

a. County-Level Costs

As shown in Table XI.1, the average county-level cost of coupon issuance in the 12 demonstration counties was \$1.32 per case-month in October of 1990.⁴ The cost per case-month ranged from \$0.65 in Montgomery County to \$4.25 in Clay County. The second lowest cost was in Jefferson County, where the cost was \$1.07 per case-month. The lower costs in Montgomery and

³Each demonstration county experienced a minimum of two cash-issuance problems during this period. The number of problems in each county was as follows: Choctaw, 2; Clay, 3; Conecuh, 6; Dale, 20; Dallas, 8; DeKalb, 5; Fayette, 3; Jefferson, 44; Lauderdale, 6; Marion, 3; Montgomery, 44; and Pickens, 8.

⁴The average issuance cost for the 8 visited counties was \$1.17 per case-month; when we factored the 4 unvisited rural counties into the computation, the average cost for all 12 demonstration counties was estimated to be \$1.32 per case-month. The latter figure is higher than the former figure because all four unvisited counties were rural, and the per-case-month cost for issuance in rural counties was substantially higher than that for urban counties; thus, factoring in the unvisited (rural) counties increased the average issuance cost.

TABLE XI.1
COUNTY-LEVEL COUPON ISSUANCE COSTS

County	Direct Labor (dollars)	Fringes (dollars)	Security (dollars)	Postage (dollars)	Total Cost (dollars)	Monthly Caseload ^a	Cost per Case-Month (dollars)
Clay	1,263	316	--	25	1,604	377	4.25
Conecuh	2,090	523	--	175	2,787	1,375	2.03
Dale	1,468	367	--	74	1,909	1,667	1.14
Dekalb	3,536	884	--	--	4,420	1,882	2.35
Fayette	2,211	553	--	--	2,764	960	2.88
Jefferson (U)	16,982	4,246	4,000	94	25,322	23,703	1.07
Lauderdale	3,340	835	30	211	4,416	2,328	1.90
Montgomery (U)	4,844	1,211	552	83	6,690	10,344	0.65
Total for Visited Urban Counties	21,826	5,457	4,552	177	32,012	34,047	0.94
Total for Visited Rural Counties	13,908	3,477	30	485	17,900	8,589	2.08
Four Unvisited Rural Counties ^b	13,665	3,416	25	506	17,612	8,435	2.09
Total for All Demonstration Counties	49,399	12,350	4,607	1,168	67,524	51,071	1.32 ^c

SOURCE: Evaluation of the Alabama Food Stamp Cash-Out Demonstration.

NOTE: (U) designates an urban county.

^aFor October 1990.

^bSite visits were not conducted in 4 rural counties (Choctaw, Dallas, Marion, and Pickens). However, so that the per-case-month cost for the 12 demonstration counties was not biased toward the lower urban figure (\$0.94, compared with \$2.08 for the rural visited counties), we estimated the issuance costs in these counties on the basis of the average per-case-month cost by category in the 6 rural counties that we did visit, added those estimates to the total, and calculated a new total per-case-month cost for all 12 demonstration counties.

^cThis estimate is based on a caseload count that includes cash-out households. If cash-out households were excluded, the total cost per case-month would be 5 percent higher. Also, this cost figure reflects the 67 percent urban/33 percent rural composition of the demonstration counties' caseloads. If the estimate were weighted to reflect the statewide 46 percent urban/54 percent rural composition, it would increase to \$1.53 per case-month.

Jefferson Counties reflect the economies of scale in the more populous counties, which offset higher security costs and total labor costs. The wide range in costs among the rural counties resulted primarily from differences in staffing patterns. For example, the county director of DHR was involved in issuance in some counties, but not in others; in addition, the amount of time spent on issuance by the FSP supervisors varied widely among the counties.⁵ These differences resulted from variations in the levels of interest and expertise of the staffs.

b. State-Level Costs

As shown in Table XI.2, the average state-level cost of coupon issuance was \$0.22 per case-month. That cost consists of the time spent by (1) accounting staff, to maintain the coupon inventory and issuance records and to order the state bulk storage supply, (2) auditing staff, to count the physical inventory and to complete the inventory reconciliation and ordering forms, and (3) information systems staff, to produce the computer reports on coupon issuance. The cost also consists of statewide insurance costs, and storage and transportation costs for the bulk state inventory.

c. Federal Costs

By updating to 1990 the federal coupon-issuance costs obtained in 1988 by Kirlin et al. (1990), we produced the following estimates⁶:

- \$0.18 per case-month for coupon printing
- \$0.02 per case-month for coupon storage, distribution, and shipping

⁵Each county in Alabama has a DHR director who oversees state welfare activities, including food stamp operations, in that county. Occasionally, in some of the rural counties, the DHR director might become directly involved in food stamp issuance by supervising the cashiers' coupon reconciliations and preparing reports. Under the county DHR director, each food stamp office has a program supervisor for food stamps who regularly supervises, and occasionally performs, food stamp issuance, coupon reconciliation, and inventory control.

⁶The 1988 figures were updated by using the fixed-weight price index for federal nondefense purchases of goods and services (*Survey of Current Business*, 1990 and 1991); between 1988 and 1990, this index increased 8.1 percent.

TABLE XI.2
STATE-LEVEL COUPON-ISSUANCE COSTS
(In Dollars)

Type of Monthly Cost	Amount
Accounting (Direct Labor and Fringe Benefits)	1,001.08
Auditing (Direct Labor, Fringe Benefits, and Mileage)	345.42
Production of Issuance Listings (Direct Labor and Fringe Benefits)	431.71
Insurance	3,000.00
Storage	10,000.00
Transportation	21,666.67
Total	36,444.88
Per Case-Month ^a	0.22

SOURCE: Evaluation of the Alabama Food Stamp Cash-Out Demonstration.

^aBased on an average statewide monthly caseload in FY1990 of 165,752.

- \$0.17 per case-month for Federal Reserve Bank fees
- \$0.14 per case-month for authorizing and monitoring retail stores

A total of \$0.51 per case-month in federal costs would be eliminated under nationwide cash-out.

4. Issuance Costs Under the Check System

a. County-Level Costs

County staff were not directly involved in the issuance of food stamp checks; consequently, the costs of check issuance incurred at the county level were small, consisting primarily of the time spent by certification and eligibility workers to resolve check-issuance problems. From a mail survey of certification and eligibility workers, we learned of a number of different types of *check*-issuance problems, including a food stamp check which had a benefit amount that was believed by the recipient to be incorrect, the incapacitation of a designated payee, and the nonreceipt of a benefit check. On the basis of the mail survey, we determined that the cost of problem resolution under check issuance decreased from \$0.38 per case-month in May of 1990 (the first month of cash-out, when problems with the software programs and issuance procedures were still being resolved) to \$0.06 per case-month in October of 1990.

On the basis of our on-site interviews with eligibility and certification workers, we determined that the incidence of *coupon*-issuance problems was quite low, and that the resolution of a typical problem required very little labor time; therefore, we did not factor this type of cost into our computation of county-level coupon-issuance costs, as discussed in Section A.3. In effect, we assigned a zero cost to the resolution of coupon-issuance problems. Thus, \$0.06 per case-month is our estimate of the maximum difference in the cost of problem resolution between the check-issuance and coupon-issuance systems. However, the true difference might have been somewhat smaller, because (1) the cost of problem resolution under the coupon-issuance system, although small, was actually larger than zero, and (2) the cost of problem resolution under the check-issuance system

might have declined further as workers gained more experience with check issuance. Table XI.3 shows the labor cost, by county, for check-issuance problem resolution during October of 1990.

b. State-Level Costs

As shown in Table XI.4, the average state-level cost of check issuance was \$0.97 per case-month. In addition to the cost of the postage needed to mail the checks, the state-level cost includes time spent by (1) data systems staff, to process the file for producing checks, (2) information systems staff, to produce the daily report of checks returned in the mail, (3) staff in the Comptroller's Office, to produce the checks, (4) accounting staff, to oversee check production, mail checks, and handle checks returned in the mail, and (5) staff in the Treasurer's Office, to process, reconcile, and store canceled checks. The per-case-month cost of \$0.97 might be higher than the cost would be (1) if the cash-out caseload had been larger (as it would be under total cash-out), and (2) under an extended demonstration of cash-out. With a larger cash-out caseload, economies of scale could cause per-case-month costs to decline, because some check-issuance costs (such as labor costs for Data Systems Management Division and Food Stamp Accounting staff) would not be significantly greater with a larger number of check issuances. Under a more protracted demonstration of cash-out, staff would have greater opportunity to gain experience with check-issuance procedures (for example, handling returned checks), and additional software problems might be identified and resolved, so the labor costs associated with those problems would be likely to fall below the costs observed in this demonstration.

c. Federal Costs

The Federal Reserve System recovers all of its costs of processing checks by charging processing fees to banks. Thus, no costs that must be paid by any level of government are incurred as a consequence of the processing food stamp checks by the Federal Reserve System. The absence of costs incurred at the federal level under the check-issuance system contrasts sharply with the

TABLE XI.3
COUNTY-LEVEL CHECK-ISSUANCE COSTS

County	Number of Issuance Problems, October 1990	Direct Labor Cost ^a (In Dollars)	Fringe Benefits (In Dollars)	Total Labor Cost (In Dollars)
Choctaw	0	\$0	\$0	\$0
Clay	0	0	0	0
Conecuh	1	10.66	2.67	13.33
Dale	2	21.32	5.33	26.65
Dallas	1	10.66	2.67	13.33
Dekalb	0	0	0	0
Fayette	0	0	0	0
Jefferson	1	10.66	2.67	13.33
Lauderdale	1	10.66	2.67	13.33
Marion	0	0	0	0
Montgomery	1	10.66	2.67	13.33
Pickens	3	31.98	8.00	39.98
Total	10	106.60	26.68	133.28
Per Case-Month ^b				0.06

SOURCE: Evaluation of the Alabama Food Stamp Cash-Out Demonstration.

^aThe average biweekly salary midpoint for eligibility and certification workers was \$819.73, or \$10.25 per hour. According to the mail survey of the workers, the average time spent handling one problem was 1.04 hours.

^bBased on a check-issuance caseload in October 1990 of 2,124.

TABLE XI.4
STATE-LEVEL CHECK-ISSUANCE COSTS
(In Dollars)

Type of Monthly Cost	Amount
Data Systems Management Division (Direct Labor and Fringe Benefits)	156.90
Food Stamp Accounting (Direct Labor and Fringe Benefits)	630.73
Postage, October 1990	531.00
Treasurer's Office, at \$0.04 per Check ^a	84.96
Comptroller's Office--Warrant Division, Audit Division, and Data Processing (Direct Labor and Fringe Benefits)	199.01
Warrant Forms, at \$0.01 per Check ^a	21.00
Information Systems Consultant	433.40
Total	2,057.00
Per Case-Month ^a	0.97

SOURCE: Evaluation of the Alabama Food Stamp Cash-Out Demonstration.

^aBased on a check-issuance caseload in October 1990 of 2,124.

substantial costs incurred at the federal level under the coupon-issuance system, which are described in Section A.3. Under coupon issuance, federal-level costs amounted to \$0.51 per case-month.

5. The Effects of Cash-Out on Issuance Costs

a. Costs, by Level Incurred

Table XI.5 summarizes the direct per-case-month costs of the coupon- and check-issuance systems at the county, state, and federal levels. These costs are shown at the level *incurred*, rather than at the level *paid*. The amounts shown do *not* reflect federal sharing of 50 percent of issuance costs incurred at the state and county levels. Federal cost sharing is addressed in the next section, in conjunction with our discussion of Table XI.6.

As shown in Table XI.5, the lower costs of check issuance incurred at the county and federal levels more than offset the higher costs incurred at the state level. Compared with coupon issuance, labor costs for check issuance were substantially lower at the county level (\$0.06 per case-month, compared with \$1.21 for coupon issuance); however, they were higher at the state level (\$0.71 per case-month, compared with \$0.01 for coupon issuance). For nonlabor direct costs at the county level, coupon-issuance costs amounted to \$0.11 per case-month, whereas none of those costs were incurred under check issuance. At the state level, nonlabor costs amounted to \$0.26 for check issuance and \$0.21 for coupon issuance. In addition, under 100 percent check issuance, a total of \$0.51 per case-month in costs incurred at the federal level would be eliminated.

b. Comparison of Costs, by Level Incurred and Level Paid

Overall, we estimate that the cost of check issuance was 50 percent that of coupon issuance, and that three-fourths of the savings accrued to the federal government and one-fourth to the state government. As shown in Table XI.6, the \$2.05 per case-month costs of *coupon issuance* were shared as follows: the \$0.51 in costs incurred at the federal level were paid entirely by the federal government, while the \$1.54 in costs incurred at the state and county levels were paid equally by the

TABLE XI.5
COUPON-ISSUANCE AND CHECK-ISSUANCE COSTS, BY
LEVEL OF GOVERNMENT AT WHICH COST IS INCURRED
(In Dollars)

Cost	Cost per Case-Month, by Level at which Cost Is Incurred						
	Coupon Issuance			Check Issuance			
	County	State	Federal ^a	Total	County	State	Federal ^a Total
Labor ^a	1.21	0.01	--	1.22	0.06	0.71	-- 0.77
Coupon Storage, Transportation, Distribution, and Insurance	--	0.21	0.02	0.23	--	--	-- --
Security	0.09	--	--	0.09	--	--	-- --
Postage	0.02	--	--	0.02	--	0.25	-- --
Coupon Printing	--	--	0.18	0.18	--	--	-- --
Warrant Forms	--	--	--	--	--	0.01	-- 0.01
Federal Reserve Bank Fees	--	--	0.17	0.17	--	--	-- --
Authorizing and Monitoring Retail Stores	--	--	0.14	0.14	--	--	-- --
Total	1.32	0.22	0.51	2.05	0.06	0.97	-- 1.03

SOURCES: County- and state-level cost data were obtained from the Evaluation of the Alabama Food Stamp Cash-Out Demonstration. Federal cost data for coupon issuance were obtained from Kirlin et al., 1990; their 1988 data were updated to 1990 by using the fixed-weight price index for federal nondefense purchases of goods and services.

^aFederal costs were available by function, rather than by labor/nonlabor. Therefore, federal labor costs are not shown separately, but are included in the costs of each function.

TABLE XI.6

ISSUANCE COSTS PER CASE-MONTH, BY LEVEL
OF GOVERNMENT AT WHICH COSTS ARE INCURRED AND PAID
(In Dollars)

	Costs Incurred		Costs Paid		
	Coupon Issuance (A)	Check Issuance (B)	Coupon Issuance (C)	Check Issuance (D)	Savings (E=C-D)
Federal Government	0.51	0.00	1.28	0.515	0.765
State/County Government	1.54	1.03	0.77	0.515	0.255
Total	2.05	1.03	2.05	1.030	1.020

SOURCE: Evaluation of the Alabama Food Stamp Cash-Out Demonstration.

NOTE: The amounts shown under "Costs Paid" reflect federal sharing of 50 percent of costs incurred at the state and county levels.

state and federal governments.⁷ Thus, coupon-issuance costs paid by the federal government were \$1.28 per case-month, and coupon-issuance costs paid by the state government were \$0.77 per case-month. The \$1.03 per case-month costs of *check issuance* were incurred entirely at the state and county levels and were paid equally by the state and federal governments; thus, check-issuance costs paid by the federal government were \$0.515 per case-month, and check-issuance costs paid by the state government were also \$0.52 per case-month. The federal government realized a savings of \$0.765 per case-month when issuance was switched to checks, and the state government realized a savings of \$0.255 per case-month. These estimates fully reflect federal sharing of 50 percent of issuance costs incurred at the state and county levels.

This estimate of the difference in costs between the check-issuance and coupon-issuance systems is conservative. The conservative nature of the estimate is due to (1) the exclusion of overhead costs from our calculations, as explained in Section A.2 (those costs might be lower under check issuance), and (2) the limited nature of the demonstration, which precluded some economies of scale and labor efficiencies that might have been achieved under total cash-out or over the long run.

B. COSTS OF PLANNING AND IMPLEMENTING THE CASH-OUT DEMONSTRATION

Substantial costs were incurred in planning and implementing the cash-out demonstration. We estimated the labor and nonlabor costs on the basis of data obtained through on-site interviews and telephone conversations with Food Stamp Division staff who handled the planning and implementation of cash-out and the training of county-level and state-level staff. Those on-site interviews were held in conjunction with the interviews described in Section A.2. Table XI.7 summarizes the costs of planning and implementing the cash-out demonstration, by type of cost.

⁷This estimate of \$2.05 is significantly lower than the estimate of \$3.00 per case-month by Kirlin et al. (1990) in the evaluation of the electronic benefit transfer (EBT) demonstration. These differences are likely to stem from two factors: (1) issuance procedures and labor and other costs differ in Alabama and Pennsylvania, the site of the EBT demonstration, and (2) the EBT demonstration evaluation included overhead costs (see Abt Associates, Inc., 1987).

TABLE XI.7
COSTS OF PLANNING AND IMPLEMENTING
ALABAMA'S CASH-OUT DEMONSTRATION
(In Dollars)

Type of Cost	Amount
Software Development (Technical Labor Costs)	137,025
Staff Training (Labor and Per-Diem Costs)	37,155
Policy Development (Labor Costs)	6,739
Brochure (Printing and Mailing Costs)	1,870
Total	182,789

SOURCE: Evaluation of the Alabama Food Stamp Cash-Out Demonstration.

Overall, those labor and associated costs were estimated to be \$182,789. (As with our estimate of issuance costs, this estimate does not include overhead.)

Software development was by far the most resource-intensive implementation activity of the cash-out demonstration. A substantial amount of technical labor was required to write the programs that assigned households to the cash-out sample, created the batch check-issuance tape, and tracked the checks after issuance. For eight months, seven staff persons spent from one-quarter to full time writing and testing the programs; their total labor cost amounted to \$137,025.

A considerable amount of staff training was required to ensure that the cash-out demonstration was implemented and operated smoothly. At the county level, training costs included staff hours spent in training, as well as the mileage and per-diem costs of staff from outside Montgomery and Jefferson Counties who attended training in those two counties. A total of 340 county-level staff received training, including DHR directors, program supervisors, issuance supervisors, receptionists, cashiers, certification and eligibility workers, and clerical workers. Their labor cost (including time spent on travel and on actual training) amounted to \$25,040, plus 25 percent fringe benefits, for a total labor cost of \$31,300. The mileage cost for 200 staff persons to attend training in Montgomery and Jefferson Counties was \$2,700, and the per-diem cost for that training was \$1,100. Thus, the total county-level training costs were \$35,100.

Training costs for state-level staff, which included the hours spent in training by ten staff members in the Food Stamp Division and the Fiscal Administration Division of DHR, amounted to \$575 (including fringe benefits). In addition, the Food Stamp Division's Cash-Out Trainer spent a total of 78 hours preparing written materials and conducting training, for a total cost of \$1,480 (including fringe benefits). The total training costs incurred at the state level were \$2,055.

Planning and implementation costs also included the time spent by the DHR Commissioner (12 hours), the Acting Director of the Food Stamp Division (64 hours), the Cash-Out Project Manager (120 hours), the Cash-Out Trainer (100 hours), and a policy analyst in the Food Stamp Division (10

hours) to attend meetings about the cash-out demonstration, to work out and document the check-issuance procedures, and to revise the Administrative Regulations. Those total labor costs (shown in Table XI.7 as policy development costs) amounted to \$6,739.

A brochure explaining cash-out was printed, mailed to cash-out households, and distributed to interested parties, such as grocers. The printing cost for 6,000 brochures was \$570, and the postage for mailing the brochures to cash-out households was \$1,300, for a total cost of \$1,870.

XII. THE IMPACT OF ALABAMA'S FOOD STAMP CASH-OUT DEMONSTRATION ON ISSUANCE-SYSTEM LOSS

Food stamp benefits, whether issued in the form of coupons or checks, are vulnerable to loss at several points in the issuance system.¹ This benefit loss is due to theft or loss during production, shipping, storage, or mailing; theft or loss of benefits after client receipt; and duplicate issuances. The costs associated with benefit loss might be borne by the state or federal government, the client, or (with check issuance) a third party, such as a bank or grocery store.²

In this chapter, we assess the impact of the Alabama Food Stamp Cash-Out Demonstration on these types of loss. This impact stems from two factors. First, by eliminating several steps in the issuance process, check issuance requires fewer transactions and, consequently, provides fewer opportunities for loss from theft and accidental overissuance due to cashier error. Second, because unauthorized persons might have more difficulty negotiating checks than coupons, the theft of benefits from recipients might be reduced; checks are issued in the names of the intended recipients and can legally be cashed only by those individuals, whereas coupons are negotiable by the bearer. However, the greater security provided by checks might be offset if cash is considered more attractive than coupons and, hence, is a more frequent target of theft.

The results of this assessment of the impact of cash-out on the Food Stamp Program's (FSP) vulnerabilities to benefit loss should be interpreted with caution. For some types of loss, accurate

¹As used in this chapter, *loss* refers to a financial loss incurred by the government, a client, or a third party.

²We do not evaluate the impact of cash-out on what might be considered an additional type of loss--loss incurred by clients as a consequence of their use of food stamp coupons in an unintended manner, such as selling them to obtain cash (trafficking), using them to purchase ineligible items, or spending cash change from coupon purchases on ineligible items. This misuse of food stamp coupons does not have a direct counterpart under check issuance. Under check-issuance, clients receive cash benefits, hence they have no need to exchange their benefits for cash; furthermore, no items are ineligible. Thus, this type of loss is in effect defined away under cash-out, although the issue of clients using check benefits to purchase items that are ineligible for purchase with coupons (potentially an important issue for policymakers) remains. (As discussed in Chapter V, the household survey produced little evidence of such purchases.)

data are not available. Furthermore, the Alabama Cash-Out Demonstration was of small scale and relatively brief duration; very different results might be obtained from a larger and lengthier check-issuance demonstration. However, our analysis does provide an indication of potential differences in vulnerabilities between the coupon-issuance and check-issuance systems.

This chapter is organized around the bearers of the costs associated with food-stamp issuance loss. After describing the types of losses and discussing our research design in Sections A and B, respectively, we examine losses to the state and federal governments in Section C, loss to food stamp clients in Section D, and loss to third parties in Section E. Section F summarizes our findings.

A. TYPES OF ISSUANCE-SYSTEM LOSSES

Table XII.1 lists five categories of loss, indicates whether the loss is associated with coupon issuance or check issuance, and shows who pays for or bears each loss. The table shows that fewer types of losses exist under check issuance than under coupon issuance, but does not show the amount of loss associated with each issuance system (we discuss this issue later in the chapter). The types of losses are:

1. *Losses in production and handling.* These losses include benefits stolen during production, shipment, or storage, and accidental overissuance and loss from issuance-office inventories. The federal government absorbs loss that results from theft occurring before the receipt of coupons by the states. According to FSP regulations, after the states receive the coupons and place them in bulk or local storage (usually in local banks), the states are responsible for loss resulting from theft, embezzlement, and cashier and clerical errors.
2. *Duplicate issuances.* Duplicate issuance occurs when benefits are erroneously issued more often than they should be during a benefit period. The states bear this loss, although administrative claims for repayment are made against the client when the error is discovered.
3. *Loss in the mail.* During the Alabama Cash-Out Demonstration, some coupon allotments and all checks were mailed to the clients. All benefits that were actually or fraudulently reported lost in the mail were replaced. This loss is borne by the

TABLE XII.1

ISSUANCE SYSTEM VULNERABILITIES TO LOSS IN THE
ALABAMA FOOD STAMP PROGRAM AND CASH-OUT DEMONSTRATION

Type of Losses	Issuance System		Who Pays for or Bears the Loss	
	Coupons	Checks	Coupons	Checks
Loss in Production and Handling				
Theft during production, shipment, and storage	X		State/Federal Governments	
Accidental overissuance and loss from issuance-office inventories	X	X	State Government	State Government
Duplicate Issuances	X	X	State Government	State Government
Loss in the Mail	X	X	State/Federal Governments	Banks and Other Check-Cashing Institutions ^a
Benefits Lost by or Stolen from Clients after Being Received	X	X	Clients	Clients; Banks and Other Check-Cashing Institutions ^b

SOURCE: Evaluation of the Alabama Food Stamp Cash-Out Demonstration.

^aIf the lost checks are fraudulently cashed.

^bIf the client had already endorsed the check (whether cashed or not), the client bears the loss. If the client had not endorsed the check, the financial institution cashing the fraudulently endorsed check bears the loss.

state and federal governments under the coupon-issuance system.³ Under the check-issuance system, no loss is incurred if a lost check is never cashed. However, if a lost check is improperly cashed and the client reports never receiving or endorsing the check, then, according to Alabama state law, the financial institution that cashed the check bears the loss.

4. *Loss of benefits after client receipt.* This loss occurs when coupon or check benefits are lost, stolen, or damaged after they have been received by the client. Under the coupon-issuance system, this loss is borne by the client, because coupons lost or stolen after being received by the client are not replaced. Under the check-issuance system, this loss can occur either before or after the checks have been endorsed and cashed. Checks lost or stolen before being endorsed and cashed are replaced; if the lost or stolen checks are then cashed by an unauthorized person, that action represents a loss to the financial institution that cashed the check. Check benefits lost or stolen after the check is cashed are not replaced, and the loss is borne by the client.

Several potential sources of loss were not examined in our analysis, because they were not significant sources of loss in the Alabama Food Stamp Cash-Out Demonstration. Under a nationwide coupon-issuance system, two such losses, inflated redemption credits claimed by retailers and banks, and altered or counterfeit benefits, have been estimated to be close to zero.⁴ Under the check-issuance system, redemption credits are eliminated, and loss from altered or counterfeit benefits is expected to be close to zero.⁵

³States are responsible for mail losses in excess of 0.5 percent of the dollar value of the coupons issued (known as the "tolerance level"). The federal government absorbs mail losses below the tolerance level.

⁴In their evaluation of an electronic benefit transfer demonstration in Pennsylvania, Kirlin et al. (1990) estimate that loss due to excessive redemption credits claimed by retailers and banks (about 0.01 percent of benefits issued) is close to zero nationwide, because excessive credits are corrected and do not directly increase program costs. They also estimate that, nationally, about \$20,000 in counterfeit coupons are discovered annually, amounting to less than 0.001 percent of benefits issued (or substantially less than \$0.01 per case-month).

⁵Potentially, a food stamp check could be altered to inflate its value or to change the name of the payee; however, no such incidents were detected or reported in the Alabama Cash-Out Demonstration. An altered or counterfeit check would be discovered during the reconciliation procedures of the Alabama Treasurer's Office, in which all canceled checks go through an automated scanning process. In that process, warrant numbers are matched to a computer file and checked for correct payee and amount. In the event of a discrepancy, the discrepant check is flagged, and a worker pulls it from the batch job in which it was being processed and tracks down the source of the discrepancy. In such a case, the responsibility for the financial loss from the altered or counterfeit check would be borne by the financial institution that had cashed the check.

Another potential source of loss, excessive issuance, is insignificant in Alabama. Excess issuance might result when authorization-to-participate (ATP) cards are lost, stolen, altered, or counterfeited, and are then used fraudulently to obtain benefits.⁶ Alabama's in-person ATP system, unlike that in many states, removes all or most of the opportunities for loss from excessive ATP authorization, a source of loss in systems in which ATP cards are mailed directly to clients every month.⁷ Because ATP cards were not used under Alabama's check-issuance system, any potential loss from excessive ATP authorization was eliminated.

B. RESEARCH DESIGN

The objective of our research is to estimate the potential effects of cash-out by comparing the dollar value of benefit loss under the coupon-issuance and check-issuance systems, both as a percentage of total issuance and on a dollars-per-case-month basis.⁸ We have made comparisons within categories of vulnerabilities. In addition, we report, in a narrative format, findings from discussions with food stamp workers and clients about the impact of check issuance on vulnerabilities to loss.

The primary source of information on coupon benefits that are lost or stolen in the mail and on benefits that are lost from coupon inventories are the monthly FNS-46 and FNS-250 reports and the quarterly FNS-259 report, which are submitted by each Alabama county to the state Food Stamp

⁶Excessive issuance resulting from authorizing benefits for individuals who are not eligible, or from authorizing benefits in amounts in excess of those for which individuals are eligible, is not sensitive to the form of issuance and is also not included in our analysis.

⁷In Alabama, participants must go to the food stamp office, present their identification cards, and sign and return the ATPs issued to them at that time; they are then issued food stamp coupons. In other types of issuance systems, to receive benefit allotments, clients receive their ATP cards by mail and then must present their cards to local coupon delivery agents. This type of system is vulnerable to loss arising from lost or stolen ATPs, falsely reported ATP loss or theft, multiple issuance of ATPs, ATPs altered to inflate their value, blank ATPs that are stolen and fraudulently filled out, and counterfeit ATPs.

⁸A "per-case-month" basis is a common means of comparison for FSP costs. Per-case-month costs are obtained by dividing a monthly cost by the monthly food stamp caseload; thus, costs pertaining to caseloads of different sizes can be compared.

Accounting Office. We obtained copies of these reports from the Food Stamp Accounting Office. We also obtained corresponding information on check issuance from the FNS-46 and FNS-250 reports and supplemented the information with data compiled by the state Food Stamp Division.

Direct data on the other sources of loss in Alabama are not available; however, we obtained limited information from interviews with food stamp staff and focus group discussions with clients. The interviews with food stamp staff are described in Chapter IX, and the focus group discussions are described in Mazur and Ciemnecki (1991).

C. LOSSES TO THE STATE AND FEDERAL GOVERNMENTS

Under cash-out, reducing the number of steps in the benefit production and handling process and shifting the cost of fraudulently redeemed benefits to third parties, such as banks and stores, virtually eliminated the losses borne by the state and federal governments. Such losses were already small under coupon issuance.

1. Loss in Production and Handling

a. Coupon Benefits

Accidental overissuance of coupons to clients and loss from issuance office inventories (which might be indistinguishable from accidental overissuance) were the only significant (although small) sources of loss of coupons in production and handling during the cash-out demonstration period.⁹ Table XII.2 shows that the cost of coupons overissued or lost from inventory in the 12 demonstration counties was less than \$0.01 per case-month.

⁹Coupons can be lost or stolen during production, shipment, or storage. However, Kirlin et al. (1990) estimate that coupon thefts from printing companies and storage locations are quite rare, amounting to less than 0.001 percent of benefits, and are usually recovered or covered by insurance.

TABLE XII.2

COUPON OVERISSUANCE AND LOSS FROM INVENTORY
IN THE DEMONSTRATION COUNTIES,
MAY 1990 THROUGH OCTOBER 1990

Average Monthly Value of:	
Coupons issued	\$8,359,706
Overissuance and loss from inventory	\$389
Average Monthly Caseload ^a	48,979
Cost per Case-Month of Overissuance and Loss from Inventory	<\$0.01

SOURCE: Alabama FNS-250 reports.

NOTE: Includes loss in all 12 cash-out counties. Both monthly averages are for May 1990 through October 1990.

^aIncludes coupon households only.

FNS = Food and Nutrition Service.

b. Cash Benefits

In principle, thefts of blank warrants could occur during production, handling, or storage. However, according to state officials, Alabama maintains careful control over all checks and has a numbering and tracking system that virtually precludes any loss of blank checks. No thefts of blank warrants occurred during the demonstration period. Thus, it is unlikely that blank warrants would be stolen in Alabama, and we estimate loss from thefts of blank warrants to be zero.

2. Duplicate Issuances

a. Coupon Benefits

Duplicate issuance rarely, if ever, occurs in Alabama, because the centralized automated client data system is updated immediately when benefits are issued. In the rare event that duplicate issuance does occur (for instance, when the automated system is down), administrative claims against the client for repayment are made when the error is discovered, and repayment is generally obtained. We estimate loss in this area to be zero.

b. Cash Benefits

Early in the demonstration, during the first two months of cash-out, 17 duplicate checks were inadvertently issued; however, after the information systems staff modified the check-issuance computer programs, no other duplicate issuance occurred. The 17 duplicate checks were returned to the food stamp offices by the clients, and the state suffered no loss. Therefore, we estimate check-issuance loss from this source to be zero.

3. Loss in the Mail

Under Alabama's issuance systems, because mail issuance is more vulnerable than over-the-counter issuance to loss, the mail issuance of coupons is generally restricted to cases with small allotments. However, during the cash-out demonstration, all checks were mailed, regardless of allotment amount. Consequently, the average benefit amounts for the coupon mail issuances (\$56)

and check mail issuances (\$180) differed substantially, confounding comparison of mail loss under the two systems.

a. Coupon Benefits

A small amount of mail loss of coupons occurred in the research counties during cash-out. Table XII.3 shows that, in the 12 research counties during the eight months of cash-out, May through December of 1990, 32 out of 30,296 coupon mail issuances were reported lost in the mail. The value of the coupons lost in the mail and replaced in these counties was \$1,469, or 0.09 percent of the total value of coupons issued through the mail (\$1,709,136). This loss amounted to \$0.05 per case-month (based on the mail-issuance caseload) and was borne by the federal government, because it was within the mail-loss tolerance level (see Section A).

b. Check Benefits

Table XII.3 shows that, of the 16,737 cash-out warrants issued during the Alabama Cash-Out Demonstration, 36 were reported not received or not cashed by the authorized client. One of the 36 checks was returned to the Food Stamp Accounting Office in the mail and was remailed to the client, and one check was not replaced because the client later acknowledged cashing the check. Twenty-two checks were voided before being cashed and caused no loss to the governments, clients, or third parties (and are not shown as a loss in Table XII.3).¹⁰ According to the affidavits signed by the clients, the remaining 12 of the 36 checks were cashed by someone other than the authorized client. As shown in Table XII.3, these checks represent a loss, because replacement checks were issued to the clients. The value of the loss was \$2,285, which was 0.08 percent of the total value of the checks issued (\$3,016,832); this loss amounted to \$0.14 per case-month and was borne by the banks or stores that cashed the checks.

¹⁰New checks were issued to the clients; these 22 new checks were called "duplicate checks" by the Alabama Food Stamp Division.

TABLE XII.3

LOSSES OF MAILED COUPON AND CHECK
BENEFITS IN THE DEMONSTRATION COUNTIES,
MAY 1990 THROUGH DECEMBER 1990

	Type of Mailed Benefit	
	Coupon	Check
Percentage of Aggregate Dollar Amount of Mail Issuance Lost and Replaced		
Aggregate Dollar Amount of Mail Issuance	\$1,709,136	\$3,016,832
Aggregate Dollar Amount Lost and Replaced	\$1,469 ^a	\$2,285 ^b
Percentage Lost and Replaced	0.09 %	0.08 %
Percentage of Total Number of Mail Issuances Lost and Replaced		
Total Number of Mail Issuances	30,296	16,737
Total Number Reported Lost	32	36
Total Number Replaced	32	12
Percentage Lost and Replaced	0.11 %	0.07 %
Dollar Amount of Mail-Issuance Loss per Case-Month		
Average Amount of Mailed Benefit ^c	\$56	\$180
Average Amount of Lost and Replaced Benefit	\$46	\$190
Average Number of Issuances per Month	3,787	2,092
Average Amount of Loss per Month	\$184	\$286
Loss per Case-Month ^d	\$0.05	\$0.14

SOURCE: Alabama FNS-46 and FNS-259 reports; Food Stamp Division tabulations.

NOTE: Includes issuances and losses in the 12 cash-out counties only. Comparisons between coupon- and cash-issuance losses should be made cautiously due to the difference in the average amount of mailed coupon benefits versus mailed cash benefits.

^aThis loss was borne by the federal government.

^bThis loss was borne by the financial institutions that cashed the checks.

^cTo minimize loss, mail issuance for *coupons* is generally restricted to small allotments. However, all *checks* were mailed, regardless of the amount of the allotment. Thus, the average amount of mailed coupon benefits is substantially smaller than the average amount of (mailed) check benefits.

^dBased on mail-issuance households only.

FNS = Food and Nutrition Service.

Three measures of mail loss can be used to compare coupon and check issuances (Table XII.3): (1) the percentage of the aggregate dollar amount of mail-issuance that was lost and replaced (which was less than 0.1 percent under both coupon issuance and check issuance), (2) the percentage of the total number of mail issuances that was lost and replaced (which was lower under check issuance), and (3) the dollar amount of mail-issuance loss per case-month (which was higher under check issuance). The first two measures suggest that mail issuance of check benefits may be somewhat more secure than mail issuance of coupon benefits. The higher loss per mail-issuance-case-month under check issuance relative to coupon issuance (\$0.14, compared with \$0.05) appears to be a result of a much larger average mail issuance amount under check issuance (\$180 per check issuance, compared with \$56 per coupon issuance), rather than a greater vulnerability of mail-issued checks.¹¹

D. LOSS TO CLIENTS

Cash-out has the potential to reduce the loss of benefits by clients after the benefits are received. Although our data are insufficient to determine precisely the differential losses under the check-issuance and coupon-issuance systems, we can use the information that does exist to obtain an indication of the potential impact of cash-out on client loss.

1. Coupon Benefits

Clients cannot obtain replacements for lost or stolen coupons; therefore, such losses do not add to the program costs to the government. However, lost or stolen coupons do represent a loss borne by the clients. In addition, research suggests that, when clients use coupons, some food retailers may

¹¹We calculated coupon mail loss as a percentage of total coupon mail issuance by dividing the coupon-issuance amount lost in the mail and replaced, by the total coupon mail-issuance amount, and multiplying by 100. We calculated the corresponding figure for check issuance by dividing the total check-issuance amount lost in the mail and replaced, by the total check-issuance amount (all of which was mailed), and multiplying by 100. The losses per case-month were obtained by dividing the average amount of loss per month during May through December 1990 by the average caseload size per month. The losses were calculated separately for coupon and check issuance and were based on the mail-issuance caseload only.

overcharge them for their food purchases.¹² We have no direct data on the amount of these types of loss in Alabama. However, in the Alabama focus group discussions, some participants reported that their food stamp coupons had been lost or stolen, and the inability to receive replacement coupons was viewed as a disadvantage of coupon issuance. Focus group participants also mentioned overcharging by retailers as a disadvantage of coupons.

2. Check Benefits

During the Alabama Cash-Out Demonstration, no checks were reported lost by or stolen from clients after being received but before being endorsed and cashed; all reported losses occurred before the clients received the checks. However, if a check had been reported lost by or stolen from a client after being received but before being endorsed and cashed, it would have been replaced, resulting in no loss to the client. (As discussed previously, if the original check had then been cashed by an unauthorized person, the loss would have been borne by the institution that had cashed the check, rather than by the state or federal government.) If the benefits had been lost or stolen after the client had cashed the check, the benefits would not have been replaced and, therefore, would not have added to program costs. However, these losses would have diverted benefits from program goals. Although the loss in this case would have been borne by the client, the amount might have been unmeasurable, as cash obtained from cashing a food stamp check would probably have been intermingled with other cash, and the loss or theft of "food cash" would not have been distinguishable from the loss or theft of other cash.

The retailer overcharging mentioned by focus group participants as a disadvantage of coupons is effectively eliminated under check issuance.

¹²Kirlin et al. (1990) estimate that benefit losses due to coupon theft or loss amount to 0.54 percent of benefits, and benefits lost by grocers overcharging amount to 0.11 percent of benefits. Together, these two sources of client loss represent \$0.86 in benefits per case-month. The estimates of Kirlin et al. are based on two surveys of coupon recipients that were conducted in one Pennsylvania county in 1985.

E. LOSS TO THIRD PARTIES

Under coupon issuance, third parties, such as banks and stores, are not subject to direct vulnerability to financial loss due to the fraudulent redemption of benefits. However, because Alabama law places the responsibility for fraudulently cashed state warrants with the financial institutions that cash the warrants, institutions that cashed fraudulently endorsed checks experienced some loss under cash-out. As shown in Table XII.3, according to the affidavits signed by the clients, of the 16,737 cash-out warrants issued, 12 were fraudulently cashed by individuals other than the authorized clients. The total amount of lost benefits amounted to \$2,285, and was attributed to loss in the mail.

The loss from the 12 checks was borne by the financial institutions that cashed them. In these cases, after the client had signed an affidavit stating that the check had not been endorsed and that the benefits had not been received by the authorized payee, the Alabama Treasurer notified the financial institution that had cashed the check. The financial institution then sent a cashier's check for the amount of the original warrant to the Treasurer's Office, and the Treasurer sent the cashier's check to the client.¹³

F. SUMMARY

Overall loss in Alabama's coupon-issuance system was quite low during the period of the cash-out demonstration. Under cash-out, some types of losses decreased or were eliminated, and other types increased but shifted from the state and federal governments and the food stamp clients to third parties, such as banks and stores. Table XII.4 summarizes issuance-system loss during cash-out. The results of the Alabama Cash-Out Demonstration indicate that:

- Cash issuance in Alabama virtually eliminated losses that add to program costs borne by the state or federal government. Under cash-out, losses from theft during coupon production, shipment, and storage; from overissuances caused by clerical

¹³The 12 checks were called "replacement checks" by the Alabama Food Stamp Division.

TABLE XII.4
ISSUANCE SYSTEM LOSS IN THE ALABAMA
CASH-OUT DEMONSTRATION

Type of Loss	Loss per Case-Month (Dollars)		Who Paid for or Bore the Loss	
	Coupons	Checks	Coupons	Checks
Loss in Production and Handling	<0.01	0	State Government	
Duplicate Issuances	0	0		
Loss in the Mail	0.05	0.14	Federal Government ^a	Banks and Other Check- Cashing Institutions ^b
Benefits Lost by or Stolen from Clients after Being Received	0.86	0 ^c	Clients	

SOURCE: Data on all check loss and on coupon loss during production and handling, through duplicate issuances, and in the mail are from the Evaluation of the Alabama Food Stamp Cash-Out Demonstration. Other data are from Kirlin et al. (1990).

^aThe federal government absorbed these losses because they were below the tolerance level of 0.5 percent of the dollar value of the coupons issued. The state absorbs losses above the tolerance level.

^bIn these cases, the clients had not received the checks. Thus, the financial institutions that cashed the fraudulently endorsed checks bore the loss.

^cFood stamp checks that were lost or stolen after being received by clients but before being cashed could be replaced, thus eliminating these sources of loss. However, the cash proceeds from food stamp checks were vulnerable to loss and theft. No information is available on the incidence or amounts of any such losses that might have been experienced by check recipients in Alabama.

error; and, potentially, from excessive issuance due to the fraudulent use of ATP cards were eliminated. However, these types of losses are quite small under the coupon-issuance system, thus precluding the possibility that a check-issuance system might achieve substantial cost savings in this area.

- Losses borne by third parties, such as banks and stores, increased substantially under cash-out because (1) all cash-out checks were issued by mail, and mail issuance is vulnerable to theft and loss, and (2) in Alabama, under coupon issuance, the government bears the cost of mail loss, but the financial institutions that cashed fraudulently endorsed checks bore the loss under check issuance. When measured as a percentage of total benefits issued, the amount of mail loss under the check-issuance and coupon-issuance systems differed little; under both systems, less than 0.1 percent of the total issuance amount was lost and replaced. However, when measured on a per-case-month basis, mail loss was \$0.05 under the coupon-issuance system and \$0.14 under the check-issuance system. The higher per-case-month loss under cash-out was primarily a function of the much higher average allotment of the mailed checks compared with the mailed coupons. Mail issuance of coupons in Alabama is generally restricted to small allotments.
- Losses borne by food stamp clients appear to have declined under cash-out, because checks that were lost or stolen before being endorsed and cashed could be replaced, whereas coupons that are lost or stolen after being received by the client are not replaced. In addition, check recipients were less likely to be subject to possible overcharging of food stamp recipients by some food retailers.

Therefore, under cash-out, costs to the government from losses during production, shipment, and storage and from overissuance declined; as did costs to clients associated with theft and loss of coupons. However, the greater security of checks was offset by a higher use of mail issuance, which is more vulnerable than over-the-counter issuance to loss, and a higher average mailed benefit amount. The cost associated with the mail loss of checks was borne by third parties, such as banks and stores.

XIII. CONCLUSIONS

Volume I of this two-volume report on the evaluation of the Alabama Food Stamp Cash-Out Demonstration presented findings from the evaluation on the effects of cash-out on food stamp recipients and their food-use and spending patterns. Volume II of this report has presented findings on the planning and implementation of the demonstration and on the effects of cash-out on Food Stamp Program (FSP) administrative costs and benefit losses. This concluding chapter discusses the policy implications of the findings.

A. IMPLICATIONS OF THE FINDINGS ON RECIPIENT IMPACTS

A chief concern expressed by opponents of cash-out is that converting the benefit form from coupons to checks would weaken the link between FSP benefits and food consumption, thereby reducing the program's ability to accomplish its objective of "raising the levels of nutrition among low-income households." Data from this evaluation's survey of food stamp households do not support this concern. According to the survey's principal measures of household food expenditures and availability of nutrients, cash-out did not reduce the effectiveness of the FSP in accomplishing its nutritional objective.

Tabulations of the household survey data show that, in Alabama, the money value of food used at home was virtually identical for recipients of food stamp checks and recipients of food stamp coupons. The mean values of this key outcome measure differed between the two groups of recipients by less than 1 percent. That difference is far from being statistically significant.

A similar picture emerges when the effects of cash-out on nutrient availability are considered. We analyzed the availability of food energy, protein, and seven micronutrients that are a public health concern. None of the differences between check and coupon households in the mean availabilities of these nutrients exceeded 3 percent (most were in the neighborhood of 1 percent or less), and none of the differences is statistically significant. The differences in the percentages of check and coupon

recipients for which the availability of food energy, protein, and the seven selected micronutrients equaled or exceeded the recommended dietary allowances were also very small and statistically insignificant.

The survey obtained no information suggesting that cash-out increased the likelihood that households did not have sufficient food to eat. Roughly 20 percent of the food stamp recipients who were surveyed reported that their households had not had enough food during the month preceding the survey, and about 10 percent reported that some household members had skipped meals because of this problem. Nevertheless, the incidences of these problems were actually greater among coupon recipients than among check recipients, although the differences are not statistically significant.

Food stamp recipients liked receiving their program benefits in the form of checks, rather than in the form of coupons. Participants in focus group discussions that we conducted in one urban county and in one rural county in Alabama voiced a strong preference for checks. They preferred the check form because checks can be used to purchase nonfood necessities, such as soap, paper products, and medicine; it is more convenient to receive a check by mail than it is to pick up coupons at the food stamp office; and there is less stigma associated with receiving and using check benefits. Responses to a series of questions in the household survey also indicated that a substantial majority of check recipients preferred the check form of benefit.

In summary, the findings from the household survey indicate that the impacts of cash-out on food stamp recipients in Alabama were negligible in terms of the money value of food used at home, the availability of nutrients, and the perceptions of households regarding the adequacy of their home food supplies. Furthermore, the survey, as well as focus group discussions with households that had received food stamp benefits in both coupon and check form, provide strong evidence that households prefer to receive food stamp benefits in the form of checks.

B. IMPLICATIONS OF THE FINDINGS ON ADMINISTRATIVE OUTCOMES

Much of the support for food stamp cash-out derives from expectations that it will (1) reduce FSP administrative costs by streamlining the benefit-issuance and redemption processes, and (2) reduce benefit loss by providing greater security for benefits and by eliminating several steps in the issuance process. The findings from the evaluation on administrative outcomes provide evidence that cash-out, as operated in Alabama, did reduce administrative costs, but did not reduce benefit loss. In this section, we discuss our findings on the impacts of cash-out in these two areas, as well as important lessons learned from the implementation and operation of the demonstration.

1. Administrative Costs

The replacement of food stamp coupons with food stamp checks would eliminate or reduce many state and federal administrative costs that are associated with issuance systems such as that in Alabama. For example, the costs of storing and transporting coupons would be eliminated, as would the costs of authorizing and monitoring retailers. The costs of delivering food stamp benefits to recipients would be substantially reduced due to the adoption of streamlined and less labor-intensive procedures, such as the replacement of over-the-counter issuance with mail issuance. Some new administrative costs would be incurred, such as costs associated with the printing, production, issuance, and reconciliation of checks. However, in our analysis of the administrative costs of the Alabama Food Stamp Cash-Out Demonstration, we found that, overall, the cost of check issuance was about one-half that of coupon issuance; the costs per case-month of check and coupon issuance were, respectively, \$1.03 and \$2.05. Factoring in federal sharing of issuance costs incurred at the county and state levels, three-quarters of the savings in issuance costs accrued to the federal government, and the remaining one-quarter accrued to the state government.

2. Benefit Loss

Under cash-out, costs to the state and federal governments from losses during the production, shipment, and storage of coupons, and from losses due to overissuance were eliminated. However, these losses are so small under the coupon-issuance system that their elimination under cash-out did not result in substantial cost savings. Another type of loss, mail loss, was borne by the state and federal governments under coupon issuance; however, under check issuance, this type of cost shifted to third parties, such as banks and stores, which cashed fraudulently endorsed checks that had been lost or stolen in the mail.

The per-case-month cost of mail loss was actually higher under cash-out (\$0.14) than under coupon issuance (\$0.05). As noted previously, under check issuance, the cost of mail loss shifted from the state and federal governments to third parties. The higher per-case-month mail loss under cash-out was primarily a result of the fact that all check benefits were mailed, whereas only coupon benefits of low value were mailed.

Losses borne by food stamp recipients might have declined under cash-out because recipients could obtain replacements for checks that had been lost or stolen before being endorsed and cashed; lost or stolen food coupons could not be replaced. However, the available data do not allow us to measure this type of loss. In addition, check recipients were less likely to be subject to possible overcharging of food stamp recipients by some food retailers.

In summary, the greater reliance on mail issuance under cash-out caused an increase in the per-case-month cost of mail loss, which was borne by third parties, such as banks and stores. This finding could arouse opposition to cash-out, as it was implemented in Alabama, among financial institutions that cash checks. However, it is unlikely that over-the-counter issuance would be maintained for checks, as the mail issuance of checks was a significant source of savings in administrative costs.

3. Planning and Implementation

With the exception of the development of the automated check-issuance system, the planning and implementation of cash-out in Alabama went smoothly, largely because the Commissioner of the Alabama Department of Human Resources (DHR) systematically laid the groundwork for the demonstration. That groundwork included the promotion of welfare reform through hearings, meetings, and personal contact with state workers, legislators, county DHR directors, food retailers, directors of advocacy groups, and other concerned persons. In addition, an important factor behind the smooth implementation of cash-out was the training and support that DHR provided to its county and state staff.

The development of the automated check-issuance system (primarily in the form of computer software) posed a major challenge in implementing the demonstration. It required more DHR and contractor staff resources and took more calendar time than was originally anticipated, thus contributing to a four-month delay in the commencement of cash-out. Development of the software was complicated by two factors: (1) Alabama was implementing two related demonstration programs simultaneously ("pure" cash-out and the ASSETS welfare-reform demonstration program, of which cash-out was a component), and (2) the development of the cash-out automated check-issuance system commenced before the evaluator of the pure cash-out demonstration was selected, resulting in the need to modify some of the early work to fit the needs of the evaluation.

C. GENERALIZING THE FINDINGS

The principal findings from the evaluation of the Alabama Food Stamp Cash-Out Demonstration are that cash-out in Alabama reduced the cost of issuing food stamp benefits by one-half, but did not reduce the effectiveness of the FSP in accomplishing its nutritional objectives. In addition, food stamp participants preferred receiving their benefits in the form of checks rather than coupons.

However, Alabama differs from much of the rest of the United States along a number of important dimensions, and these differences reduce the degree to which the results of this

demonstration can be generalized to other areas of the United States. Unique features of the way in which cash-out was implemented in this demonstration, such as the brief (eight months) duration of cash-issuance, may also limit the extent to which these results can be generalized. The findings from the Alabama Food Stamp Cash-Out Demonstration should be considered in conjunction with findings from a similar demonstration in San Diego County, California. In San Diego, cash-out resulted in reductions in several measures of household food use ranging from 5 percent to 8 percent. (The analysis of cash-out's impact on administrative costs and benefit losses in San Diego has not been completed.) Together, the results of the two demonstrations suggest that the impact of cash-out on recipients depends, at least in part, on the context in which cash-out is introduced and on the precise way that it is implemented.

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APPENDIX A

PROCEDURES USED IN THE HOUSEHOLD SURVEY

This appendix describes the household survey that was undertaken for the evaluation of the Alabama Food Stamp Cash-Out Demonstration.

A. METHODS FOR SELECTING AND LOCATING RESPONDENTS

MPR completed a total of 2,386 interviews with food stamp recipients in Alabama during a 15-week period that began the second week of August 1990 and ended the third week of November 1990. The field period ended before the Thanksgiving holiday, when food consumption and expenditure habits were likely to be atypical of respondents' customary eating and spending patterns. Of the total completed interviews, 1,131 interviews were completed with coupon recipients and 1,255 were completed with check recipients.

This section defines the study area, describes the respondents included in the survey sample, and discusses methods used to locate and contact respondents. Screening criteria and the definition of the food manager (the respondent for the main interview) are also addressed.

1. Defining the Study Area

Twelve counties participated in Alabama's pure food stamp cash-out demonstration. They were selected with the objective of drawing independent, equal-sized samples of the caseloads of Alabama's urban and rural counties. To that end, the counties were stratified by urbanicity (large urban, medium-sized urban, and rural) and, for rural counties only, by geographic region (north, central, and south).

Not all of Alabama's 67 counties were available to participate in the cash-out demonstration. Six counties (two medium-sized urban counties and four rural counties) were excluded from the sampling frame because they had been selected to participate in Alabama's comprehensive welfare reform demonstration program, ASSETS. The State of Alabama excluded an additional five rural counties from participating in the demonstration for administrative reasons. Thus, the sampling frame for the pure food stamp cash-out demonstration consisted of 56 counties: 2 large urban counties, 4

medium-sized rural counties, 17 northern rural counties, 21 central rural counties, and 12 southern rural counties.

From each of the sampling frame's two urban strata, one county was selected into the demonstration with probability of selection proportional to caseload size. This selection resulted in the selection of Jefferson (Birmingham) and Montgomery Counties. From the three rural strata, four northern counties (DeKalb, Fayette, Lauderdale, and Marion), four central counties (Choctaw, Clay, Pickens, and Dallas), and two southern counties (Conecuh and Dale) were selected, also with probabilities proportional to caseload size.

2. Selecting Respondents for Inclusion in the Sample

One-half of the interviews were to be completed with Food Stamp Program (FSP) recipients from urban counties, and one-half were to be completed with FSP recipients from rural counties. In addition, one-half of the completed interviews were to be completed with FSP recipients who receive cashed-out food benefits; the other one-half were to be completed with recipients who continued to receive their benefits in coupon form. Furthermore, the sample was to be selected such that long-term food stamp recipients would not be over-represented.

The selection of cases into the demonstration occurred in two phases: (1) the initial draw, and (2) the supplemental draw. The initial draw took place at the end of April, just prior to the first issuance of cashed-out benefits on May 1, 1990. Supplemental cases were selected into the demonstration from the time of the initial draw until August 31, 1990. All experimental and control cases that were active FSP participants at the end of June were selected into the sample for the household survey. This sample was subsequently augmented with cases that had entered the FSP (and had been selected into the demonstration) after June 30 and were active FSP participants on August 31. The supplemental sample cases ensured that the FSP recipients who were interviewed at the end of the field period had the same distribution with regard to the length of time that food benefits had been received as had those who were interviewed at the beginning of the field period.

Initial sample cases were released to survey field staff early in August of 1990; supplemental sample cases were released early in October. To ensure that the field staff worked the sample efficiently and objectively, that is, to ensure that they did not attempt to interview the "easy" cases first, leaving only difficult cases to be interviewed at the end of the field period, the sample was randomly assigned to at least six, and to as many as nine, lots per county. Some rural counties with small FSP caseloads had fewer than nine lots. Only cases from lots 1 through 3 were initially assigned to supervisors for distribution to interviewers. Interviewers could not work on lots 2 or 3 until all of lot 1 had been worked thoroughly. Each successive lot could only be worked when the previous lot had been completed.

3. Obtaining Contact Information for Respondents

The data tape prepared by the Alabama Department of Human Resources (DHR) contained home addresses and telephone numbers for the FSP recipients selected into the sample frame. Telephone numbers, when available, were extracted from hard-copy program files. In most instances, FSP caseworkers retrieved the telephone numbers. In some counties, MPR field staff assisted in telephone-number retrieval. This contact information was used in the initial attempt to locate a sampled person (that is, the person in whose name a household's food stamp benefit was issued). If the sampled person had moved, interviewers used other locating techniques, such as searches via directory assistance, in-person follow-ups with neighbors and relatives, or searches made by DHR staff through FSP files for an address update. DHR assistance was requested only after all other leads had been exhausted. The MPR field coordinator and the field supervisors coordinated the searches for contact information.

4. Screening Criteria

Participation in the FSP was used as a screen criterion in the screening interview. Specifically, a sampled person was eligible to participate in the survey if he or she had received food stamp

benefits in the month preceding the screening interview and expected to receive benefits in the next month. If the sampled person responded negatively to either one of these questions, that household was terminated from the study. In theory, if the sampled person had reported that his or her food stamp benefit was in a form different from that recorded on the sample, the information would have been recorded and the household would have remained in the sample. However, in practice, this situation did not occur.

Respondents who no longer resided in the county in which they had resided when the sample was drawn were not eligible to participate in the study, even if they had moved to another county participating in the demonstration. Of the 480 cases that proved to be ineligible to participate in the study (that is, that did not meet the screening criteria), 25 were ineligible because the respondent was deceased, 89 were ineligible because respondents had moved out of the county, and 366 were ineligible because they were no longer receiving FSP benefits.

5. Defining and Identifying the Food Manager

The food manager was the person in the sampled person's household who had primary responsibility for purchasing food and preparing meals. Although the interviewer had to conduct the initial portion of the screening interview with the sampled person, the food manager was the preferred respondent for the main interview. The food manager was identified during the telephone introduction to the screening interview. If the sampled person and the food manager were the same person, the interviewer made an appointment to complete the screening interview. If the sampled person and the food manager were two different persons, an appointment was made with both of them. During the screening interview, the sampled person was asked the screening criteria, described previously. The second half of the screener and the main food-use questionnaire were administered to the food manager.

B. SELECTION AND TRAINING OF FIELD STAFF

This section addresses the selection of the 11 field supervisors, the recruitment and hiring of the field interviewers, and the interviewer training procedures and materials.

1. Recruiting and Training Supervisors

Eleven field supervisors were hired to oversee the hiring and management of the staff of field interviewers. The supervisors were selected on the basis of a satisfactory prior work history with MPR, or recommendations from their supervisors in projects with other contractors. All but four supervisors were located in Birmingham, because we were unable to locate experienced supervisors in the rural demonstration counties. Three supervisors were assigned to manage Jefferson County. Two supervisors managed Montgomery, including one supervisor who lived in Montgomery County, and the remainder managed one or more rural counties. One supervisor was given a lead field coordinator assignment. In addition to managing field interviewers in two rural counties, she was responsible for managing four of the least experienced field supervisors.

Before the five-day interviewer training seminar began, the supervisors attended a two-day training seminar. The objectives of the two-day seminar were to familiarize the supervisors with the sample management needs of the project; instruct supervisors in their "housekeeping" responsibilities, such as reporting forms and other paperwork requirements; and give supervisors a mini-class on the survey instruments. This supervisor training proved to be invaluable in managing such a large field effort, because it allowed the supervisors to use their time more effectively during the interviewer training week. They were able to assign sample pieces to field interviewers more knowledgeably from a geographical standpoint and to develop better working relationships with their interviewers than they would have had they, and the interviewers, been hearing the information for the first time. The supervisors were also able to be more helpful in their roles as assistant trainers during mock interviews and other training exercises.

2. Recruiting and Hiring Interviewers

To hire field interviewers, newspaper advertisements were run in Alabama newspapers. The advertisements explained the study, stressed the need for a car and a telephone, and offered a higher hourly rate for experienced interviewers. Because interviewer attrition was anticipated and the field period was short, hiring goals were set high. Specifically, we recognized that, given the lengthy and in-depth training session required, rehiring and retraining during the 15-week field period would be highly inefficient. We initially hired and trained 156 interviewers.

Attrition of field interviewers occurred during the study for several reasons. Some interviewers decided that they were not interested in the survey after they had begun interviewing. Others were selected out because of problems with the quality of the data that they were collecting or because of low productivity. Interviewers had to pass a quality-control edit. They returned their first case to MPR by Federal Express, so that their work could be reviewed in a timely manner. Interviewers were not to continue working until their first completed case had been reviewed. However, because of the complexity of scheduling the screening interview and the main interview, some interviewers actually completed more than one case before receiving quality-control feedback. Fortunately, this did not pose any problems. Most of the problems that we uncovered during this initial quality-control review were easily corrected, and only one interviewer in Montgomery County was rejected as a result of the quality-control process. Table A.1 breaks down interviewer attrition, by week. As the survey progressed, the more productive interviewers were assigned new cases, but the less productive interviewers were not. No new hiring or retraining was necessary.

3. Training Materials and Procedures

Interviewer training took place in two stages. First, after being formally hired, the interviewers were sent advance study materials. Second, all interviewers were required to attend the five-day training seminar, which was held at the Mountainbrook Inn in Mountainbrook (Jefferson County), Alabama.

TABLE A.1
INTERVIEWER ATTRITION

Time Period	Number of Interviewers
Initially Hired	156
Passed Training	138
Worked Week 1	138
Worked Week 2	125
Worked Week 3	125
Worked Week 4	125
Worked Week 5	121
Worked Week 6	121
Worked Week 7	117
Worked Week 8	106
Worked Week 9	91
Worked Week 10	82
Worked Week 11	76
Worked Week 12	70
Worked Week 13	63
Worked Week 14	53
Worked Week 15	44

SOURCE: Administrative records from the Evaluation of the Alabama Food Stamp Cash-Out Demonstration, household survey.

The advance study materials included:

- An overview of the study materials
- An introduction to the study, the data collection process, and the study team
- Instruction on general interviewing techniques, including avoiding bias, proper probing, establishing rapport and gaining cooperation, and questionnaire and recording conventions
- A hypothetical, day-by-day, life cycle of a typical case
- A glossary of study-specific terms, to be learned before training was begun

The advance study materials also included a written probing exercise, which each interviewer was required to complete after reviewing the manual and to return to MPR before training.

The second stage of training was the in-depth training seminar, which was held over a five-day period in the week before the official beginning of the field period. To be qualified to receive cases, interviewers had to attend all five sessions and, through written and oral exercises at the end of training, to demonstrate knowledge of all aspects of the survey procedures. One session was covered during each day of the training period, and each trainer received a detailed training agenda listing the items to be covered in each session. The sessions contained a mixture of training techniques, including lectures, videos, written exercises, round-robin mock interviews, and one-on-one practice. The sessions were organized as follows:

Session I--Introduction to the Study, General Interviewing Skills, and Conducting the Screening Interview. Training techniques included: a general interviewer training video, written probing and recording exercises, and round-robin and one-on-one mock interviews with the screener. Length: 6 hours.

Session II--Conducting the Income and Expenditures Module of the Questionnaire. Training techniques included: a question-by-question review of the section and auxiliary materials to be used,

a written matching exercise on the definition of income sources, and round-robin and one-on-one mock interviews with that section of the questionnaire. Length: 5 hours.

Session III--Conducting the Food-Use Interview (Part I). Training techniques included: a question-by-question overview, review of the recipe page, an audio-taped example of the section, and round-robin and one-on-one mock interviews. Length: 5 hours.

Session IV--Conducting the Food-Use Interview (Part II). Training techniques included: a question-by-question overview, review of the shopping form, a written exercise on recording food use correctly, and round-robin and one-on-one mock interviews. Length: 5 hours.

Session V--Review of the Interview Process and Administrative Training. Training techniques included: a step-by-step review of the interview process and all auxiliary materials, a written exercise on gaining respondent cooperation and using the record-of-contacts form, a written exercise on searching for hard-to-locate sampled persons, and instruction on administrative responsibilities. Length: 4 hours.

C. METHODS FOR COLLECTING THE DATA

The data collection effort was conducted so as to minimize respondent burden and maximize the quality of the food-use data. This section discusses the survey process and illustrates how the timing of the field period; the use of the multiple-contact approach, recall aids, and respondent payments; and attention to special circumstances, contributed to the successful completion of the survey.

1. Timing of the Field Period

Interviewers were given their first ten cases to work at the conclusion of interviewer training on August 3, 1990. Given the seven-day lag between completion of the screening interview and the main interview, completed questionnaires arrived at MPR in mid-August. The field period concluded the weekend prior to Thanksgiving week, 1990. Table A.2 provides a breakdown of screener and interview completions, by week.

TABLE A.2

COMPLETIONS OF SCREENING INTERVIEWS AND MAIN INTERVIEWS,
BY WEEK OF FIELD PERIOD

Time Period	Percent of Screening Interviews Completed (N=2,989)	Percent of Main Interviews Completed (N=2,386)
Week 1	11.0	0.0
Week 2	5.5	10.1
Week 3	10.0	6.4
Week 4	9.7	9.4
Week 5	11.0	9.5
Week 6	11.0	10.6
Week 7	9.5	10.7
Week 8	7.5	9.6
Week 9	5.1	8.7
Week 10	3.2	5.7
Week 11	2.4	3.8
Week 12	5.0	2.3
Week 13	3.5	4.8
Week 14	5.5	2.7
Week 15	0.0	6.4
Total	100.0	100.0

SOURCE: Administrative records from the Evaluation of the Alabama Food Stamp Cash-Out Demonstration, household survey.

2. Multiple-Contact Approach

To gain and maintain respondent cooperation, a multiple-contact approach was used. This approach eased the sampled person into the survey process and maintained interviewer and respondent interaction from the time of the initial contact through the screening interview, recordkeeping, and completion of the main interview.

The first contact that a sampled person received from MPR was an advance letter. This letter explained the purpose of the study, described what would be expected of a respondent, explained the incentive payment, stressed confidentiality, and emphasized that food stamp benefits would not be affected by participation or nonparticipation in the survey. The advance letter also contained the name and telephone number of the MPR survey director and encouraged the sampled person to contact local food stamp offices if he or she had questions. In addition, a fact sheet on the back of the letter provided basic questions that the sampled person may have had, and answered the questions.

The second contact was a telephone call from an MPR field interviewer to set up an appointment with the sampled person and the food manager (if they were different persons) to conduct the screening interview. The interviewer conducted the screening interview in person at the sampled person's residence, usually within two days of the initial telephone contact. At that time, the interviewer completed the screening interview, made an appointment to conduct the main interview, and explained to the food manager how to keep a record of the foods used in the household during the seven days immediately preceding the main interview.

The third contact was a postcard that was mailed midway during the week following the screening interview. The postcard contained a personal note from the interviewer reminding the respondent of the appointed time and date for the main interview and encouraging accurate recordkeeping. The last contact between the interviewer and the sampled person was the in-person administration (using a hard-copy instrument and a pencil) of the main survey instrument.

3. Recall Aids

To further reduce the burden on the sampled person and to minimize error, the interviewer gave the food manager several recall and scheduling materials at the screening interview. The materials, which were designed to help the food manager keep track of the foods used, included:

- A calendar page showing the food manager when to begin and when to stop tracking food
- A letter providing instructions for keeping track of the foods used during the seven-day period
- An envelope in which to store receipts and on which to record food-use information
- A clip-magnet to attach the envelope to the refrigerator, if desired, and a ball point pen to write on the envelope
- A business card with the telephone number of an MPR representative, in case the food manager had questions or concerns after the interviewer left

4. Incentive Payment

To offset the respondent burden, an incentive payment was made to the sampled persons who fully participated in the survey. At the end of a successfully completed interview, the interviewer gave the sampled person a check from MPR in the amount of \$20.00. Because the sample population comprised low-income persons, many of whom might not have had bank accounts and who would have found cashing the incentive checks difficult or impossible, MPR arranged for The First Alabama Bank, which has offices throughout Alabama, to cash the checks. In addition to the incentive check, respondents were given a photocopy of a letter from an officer of the bank, indicating that the bank had agreed to cash the checks. If the sampled person presented valid identification, such as the FSP authorization-to-participate card, The First Alabama Bank cashed the check without charging the usual fee.

5. Special Circumstances

In rural counties in Alabama, households with at least one member aged 60 years or older comprise a large percentage of the food stamp caseload. In seven of the ten rural counties in the demonstration, more than 30 percent of the households that receive food stamps had at least one elderly member. We initially feared that some of these households might not be able to fully participate in the survey, either because the household members were too frail to comply with record keeping and interviewing requirements or because the members did not prepare enough meals at home. However, respondents in these households indicated that they were both willing and able to participate fully. When the food stamp recipient was too frail to prepare meals (and, hence, was not knowledgeable about the foods used), the food manager was identified, and food-use data were obtained from that person.

6. Field-Management Procedures

The data collection effort had a management plan commensurate with the numbers of staff involved. Each of the 140 field interviewers reported to 1 of the 11 field supervisors on a weekly basis. These weekly conferences covered any problems in locating sampled persons or successfully administering the questionnaire. The field supervisors also collected information vital to managing each interviewer's caseload efficiently and within budget; this information included the status of each case, the number of hours worked and miles traveled, and other expenses. Initially, six supervisors reported this information, by interviewer, directly to the MPR field coordinator on a weekly basis. Four other supervisors reported to the lead field supervisor, who lived in Birmingham. The lead supervisor reported to the MPR field coordinator on the field interviewers under her direct supervision, as well as on those under her indirect supervision. About halfway through the project, when sample management activities needed more hands-on coordination as the cases became more difficult to work, two of the Jefferson County supervisors were directed to report to a newly designated lead supervisor in Jefferson County; this supervisor, in turn, reported to the MPR field

coordinator. The MPR field coordinator maintained records on interviewer productivity and survey costs and reported to the survey director on a regular basis.

D. DATA PROCESSING AND QUALITY ASSURANCE

To ensure that the survey data would be of the highest possible quality, quality-control measures were implemented before, during, and after the data collection effort. This section discusses the routine quality-control procedures that MPR used on this survey, such as callbacks and validations, as well as special efforts undertaken to maximize the quality of the data.

1. Processing Completed Interviews

Interviewers were instructed to check for mistakes by reviewing their completed questionnaires after each interview. After performing this review, the interviewers sent the completed instruments for the screening interview and the main interview, along with the contact records, to MPR. They kept respondent recall materials for use in resolving problems that might arise during the quality-review edits. The completed questionnaires and screeners were reviewed by Princeton-based MPR quality-control personnel, who identified any problems requiring callbacks.

Seventy-nine percent of the main survey instruments required a callback to reconcile inconsistencies or to retrieve missing data. First, quality-control personnel attempted to resolve problems by asking the interviewer to look at the respondent's recall materials. If this procedure was unsuccessful, the respondent was called back by MPR's quality-control personnel or, if necessary, by an interviewer in Alabama. Of the questionnaires requiring a callback, 95 percent were resolved successfully.

To ensure the quality of this process, MPR's quality-control manager trained and monitored a staff of quality-control personnel, who worked exclusively on this study. The quality-assurance staff consisted of eight individuals. The manager trained the staff over a three-day period on the goals of the survey, a question-by-question review of the main questionnaire and screener, specific problem

areas, and how to edit the questionnaire and screener for overall internal consistency. After the staff was trained, the quality-control manager completely reviewed their first five questionnaires. Subsequently, the manager reviewed 10 percent of each person's work for the next four weeks. Finally, the manager reviewed all cases requiring a callback interview. These steps ensured that the questionnaires were edited in a thorough and consistent manner.

After cases were edited fully and callbacks were resolved, cases were sent to MPR's subcontractor, National Analysts, for data entry and processing of the food-use data. Cases were sent to National Analysts on a weekly basis.

2. Validation Procedures

Each respondent in the sample for the household survey was sent a postcard to validate the interview. MPR received 57 percent of these postcards back. The returned postcards identified one problem interviewer, whose reported interview administration time was consistently shorter than expected (20 minutes, rather than the usual 2 hours). Investigative phone calls with respondents and with the interviewer revealed that the interviewer was not following directions for collecting food-use data. The interviewer was dismissed because the errors were too egregious to be remedied by retraining. The problem cases were discarded, and additional sample pieces were released to replace them.

The callback process that we used to reconcile inconsistencies in completed questionnaires provided an additional opportunity to validate the survey. Irrespective of whether the respondent had returned a postcard, each respondent who received a data-clarification telephone callback was administered a short validation questionnaire.

E. RESPONSE RATES AND OTHER FINAL STATUSES

This section addresses the disposition of the sample, including the breakdown of eligible and ineligible cases, completed interviews, and all other final statuses.

1. Eligibility Rates

A total of 3,544 cases were released in the Alabama sample (Table A.3). Of these, 480 were defined as ineligible for the survey, leaving 3,064 eligible cases (86 percent of the total released). As mentioned previously, ineligibility was defined by one of three criteria: (1) deceased, (2) moved out of the study area, or (3) no longer receiving benefits. Slightly more coupon recipients than check recipients (253 versus 227) were ineligible.

2. Completion Rates

Table A.3 presents the survey-response rates for check recipients, coupon recipients, and all recipients (check and coupon combined). A total of 2,386 out of the 3,064 eligible cases from the sample frame list completed the household interview.¹ Thus, the overall response rate was 78 percent. A total of 1,131 interviews were completed with coupon recipients, and 1,255 with check recipients, yielding respective response rates of 76 percent and 80 percent.

Table A.3 also shows the final statuses of all eligible cases for which interviews were not completed, by coupon and check status. Refusals were the largest source of noncompletion; 10 percent of coupon recipients and 8 percent of check recipients refused to participate in the survey. Other sources of noncompletion include unlocatable sampled persons, exhausted attempts, physical or cognitive impairments, and language barriers. Table A.3 shows the disposition of every case that was a part of the sample for the Alabama household survey.

One aspect of these survey statistics warranting attention is the fact that, despite our original objective of interviewing equal numbers of demonstration and control clients, the final sample includes 124 more completions with check recipients than with coupon recipients (1,255 versus 1,131). An examination of Table A.3 shows that three main factors account for the different numbers of completions. First, fewer coupon than check households were released into the initial sample. The

¹Not included among the 2,386 completed interviews are 60 questionnaires that were lost in the mail and 46 cases that were discarded for suspected fraud.

TABLE A.3
RESPONSE RATES, BY TREATMENT AND CONTROL GROUPS

	Coupon Recipients		Check Recipients		Total	
	Number	Percent ^a	Number	Percent ^a	Number	Percent ^a
Total Cases Released	1,750		1,794		3,544	
Ineligible Cases	253		227		480	
Deceased	13		12		25	
Moved Out of County	60		29		89	
No Longer Receiving Benefits	180		186		366	
Eligible Cases	1,497	100	1,567	100	3,064	100
Completed Interview	1,131	76	1,255	80	2,386	78
Refused		10		8		9
Screener	97		79		176	
Interviewer	53		39		92	
Cannot Locate		3		3		3
Screener not completed	48		51		99	
After screener completed	1		0		1	
Exhausted Attempts		4		4		4
Screener not completed	49		37		86	
After screener completed	16		19		35	
Unable to Administer Screener		3		2		3
Physical or cognitive impairment	34		25		59	
Language barrier	1		0		1	
Other reasons	7		14		21	
Other Noncompletions		4		3		3
Completed instrument lost in mail	33		27		60	
Case discarded--suspected fraud	25		21		46	
Other reason for noncompletion	2		0		2	

SOURCE: Administrative records from the Evaluation of the Alabama Food Stamp Cash-Out Demonstration, household survey.

^aThe denominator is the number of eligible cases.

procedure used to randomly release the sample cases to survey field staff was designed so that the *expected* numbers of coupon and check cases released would be the same. However, the procedure did not ensure that the *actual* numbers of cases released were the same for the two groups. As it happened, due to random chance, 44 more coupon cases than check cases were released.

The second reason for the different numbers of completions achieved between coupon and cash recipients is that 31 fewer check recipients than coupon recipients had moved out of their initial county of residence between the start of the demonstration and the survey. The lower incidence of moving by check recipients could have been a behavioral response to the demonstration. That is, check recipients may have been reluctant to make a cross-county move, because they knew that doing so would result in their reversion to the coupon form of food stamp benefits.

The third reason for differential completion rates, one that accounts for roughly one-half of the overall difference, is that interviewers found it more difficult to complete interviews with coupon recipients. This happened in several ways, including refusals, not being able to establish contact with the sample members, or not being able to administer the interviews due to physical or cognitive impairments. These factors may reflect a greater willingness on the part of check recipients, compared with coupon recipients, to cooperate with the survey. In particular, if check recipients liked receiving their food stamp benefits in that form (as the evidence presented in this report indicates was the case), they may have been more disposed to cooperate with field interviewers than were the coupon recipients.

In itself, the differential numbers of completed interviews pose no problem for the analysis--the loss in statistical precision resulting from slight departures from the ideal of equal numbers of check and coupon cases is very small. However, to the extent that the factors influencing attrition from the sample were correlated with the outcomes of interest, such as household food use, the possibility is raised of response rate bias, which could complicate interpretations of experimental versus control differences in the data.

The first of the three factors discussed above is random in nature and, hence, is very unlikely to have led to response bias. The other two factors may signal differences in survey response behaviors that could potentially lead to some response bias in the results. However, this danger must be assessed in the context of the high response rates that were achieved in the survey--76 percent for coupon recipients and 80 percent for check recipients. In light of these overall rates, it seems unlikely that any biases due to response rate differentials could have had a significant effect on the findings presented in the text of the report.

3. Interviews Usable for the Food-Use Analysis

Not all of the 2,386 interviews could be used to analyze the impact of cash-out on household food use. Nineteen interviews (11 with check recipients and 8 with coupon recipients) were conducted with "nonhousekeeping households," that is, households that contained no member who consumed ten or more meals at home during the seven-day reference period. In addition, the data for 78 households (35 check recipients and 43 coupon recipients) were deemed to be of insufficient quality, because the interviews had been conducted more than 48 hours after the end of the seven-day reference period, or because the food-use data were mistakenly collected for a period longer than the seven-day reference period. We excluded these 97 cases from the analysis of the impacts of cash-out on the use of food at home. These reductions resulted in a final sample of 2,289 households (1,209 check recipients and 1,080 coupon recipients) for the household food-use analysis. For analyses that did not depend on food-use data, such as respondents' attitudes toward check benefits, the larger sample was used.

F. INTERVIEW LENGTH

The main household survey instrument (as opposed to the screener instrument) had two main sections. Section I contained questions about household composition, household income, household expenditures, and opinions about the cashed-out benefits. Section I took an average of 44 minutes

to complete. Section II, which contained the detailed questions on food use and meals eaten, took an average of 89 minutes to complete. Thus, the entire interview took an average of 131 minutes to complete. Table A.4 provides frequency distributions of interview lengths for each section of the survey instrument.

TABLE A.4
ALABAMA INTERVIEW LENGTH
LENGTH OF SECTION I, IN MINUTES

Length Part 1	Frequency	Percent	Cumulative Frequency	Cumulative Percent
0-14 Minutes	4	0.2	4	0.2
15-29 Minutes	314	14.2	318	14.4
30-44 Minutes	892	40.3	1,210	54.7
45-59 Minutes	526	23.8	1,736	78.4
60-74 Minutes	308	13.9	2,044	92.4
75-90 Minutes	169	7.6	2,213	100.0

Frequency Missing = 172
Mean Length = 43.8 Minutes

LENGTH OF SECTION II, IN MINUTES

Length Part 2	Frequency	Percent	Cumulative Frequency	Cumulative Percent
15-29 Minutes	10	0.5	10	0.5
30-44 Minutes	74	3.6	84	4.0
45-59 Minutes	210	10.1	294	14.1
60-74 Minutes	392	18.8	686	33.0
75-90 Minutes	575	27.6	1,261	60.6
90-104 Minutes	251	12.1	1,512	72.7
105-119 Minutes	234	11.2	1,746	83.9
120-149 Minutes	229	11.0	1,975	94.9
150-179 Minutes	80	3.8	2,055	98.8
3-4 Hours	26	1.2	2,081	100.0

Frequency Missing = 304
Mean Length = 88.7 Minutes

LENGTH OF TOTAL INTERVIEW, IN MINUTES

Total Length	Frequency	Percent	Cumulative Frequency	Cumulative Percent
30-44 Minutes	1	0.1	1	0.1
45-59 Minutes	12	0.6	13	0.7
60-74 Minutes	48	2.5	61	3.1
75-90 Minutes	221	11.4	282	14.5
90-104 Minutes	149	7.7	431	22.1
105-119 Minutes	297	15.3	728	37.4
120-149 Minutes	641	32.9	1,369	70.3
150-179 Minutes	364	18.7	1,733	89.1
3-4 Hours	196	10.1	1,929	99.1
4-5 Hours	17	0.9	1,946	100.0

Frequency Missing = 439
Mean Length = 131.3 Minutes

APPENDIX B
STATISTICAL POWER ANALYSIS

The survey data provide information about the variances of the key outcome measures used in the analysis. This information can be very useful in designing similar studies in the future. In particular, it is of interest to examine the statistical power that can be attained in difference-in-means and difference-in-proportions tests for alternative sample sizes, given the observed variances.

This appendix shows the relationship between statistical power, the size of the sample, and the size of the true outcome effect being measured for three representative variables considered in the body of the report: (1) the money value of purchased food used at home, (2) the amount of food energy in the food used at home per equivalent nutrition unit, and (3) the percentage of households attaining the recommended dietary allowance (RDA) for food energy.

Table B.1 shows statistical power levels associated with a difference-of-means test comparing experimental and control averages for the value of weekly purchased food used at home. The power levels that are shown as entries in the table are the probabilities of detecting a statistically significant impact in the outcome variable when the sample size is the size shown in the row heading and the true size of the effect is the size shown in the column heading. For instance, the table shows that, if the true effect was 6 percent of the mean, then, with a sample size of 800 treatment observations and 800 control observations, we would have a 60 percent chance of obtaining an estimate of the effect that is significantly different from zero at the 95 percent confidence level. Tables B.2 and B.3 provide comparable information for, respectively, average food energy as a percentage of the RDA and the percentage of households attaining the RDA for food energy.

TABLE B.1

STATISTICAL POWER LEVELS FOR DIFFERENCE-IN-MEANS TESTS
FOR THE MONEY VALUE OF PURCHASED FOOD USED AT HOME

Number of Observations in Each Group ^a	Assumed True Effect (Expressed as a Percentage of the Mean)			
	4%	6%	8%	10%
200	0.16	0.24	0.35	0.47
400	0.23	0.38	0.55	0.72
600	0.29	0.50	0.70	0.85
800	0.35	0.60	0.81	0.93
1,000	0.41	0.68	0.87	0.97
1,200	0.46	0.74	0.92	0.99

SOURCE: Table entries are power levels calculated according to the table in A-12b, in Dixon and Massey, 1965, assuming a 95 percent confidence level and a one-tailed test.

NOTE: The outcome variable is assumed to have a mean of \$55 and a standard deviation of \$35, based on a tabulation of the survey data.

^aEqual treatment and control sample sizes are assumed, so that total observations for the experimental and control groups are twice the numbers shown in the row headings.

TABLE B.2

STATISTICAL POWER LEVELS FOR DIFFERENCE-IN-MEANS
TESTS FOR THE AVAILABILITY OF FOOD ENERGY
(EXPRESSED AS A PERCENTAGE OF THE RDA)

Number of Observations in Each Group ^a	Assumed True Effect (Expressed as a Percentage of the Mean)			
	4%	6%	8%	10%
200	0.21	0.34	0.50	0.66
400	0.31	0.54	0.75	0.89
600	0.41	0.69	0.88	0.97
800	0.50	0.79	0.95	0.99
1,000	0.57	0.86	0.98	1.00
1,200	0.64	0.91	0.99	1.00

SOURCE: Table entries are power levels according to the table in A-12b, in Dixon and Massey, 1965, assuming a 95 percent confidence level and a one-tailed test.

NOTE: The outcome variable is assumed to have a mean of 162 percent and a standard deviation of 79 percent, based on a tabulation of the survey data.

^aEqual treatment and control sample sizes are assumed, so that total observations for the experimental and control groups are twice the numbers shown in the row headings.

RDA = recommended dietary allowance.

TABLE B.3

STATISTICAL POWER LEVELS FOR DIFFERENCE-IN-PERCENTAGES
TESTS FOR AVAILABILITY OF FOOD ENERGY IN AMOUNTS
THAT EQUAL OR EXCEED THE RDA

Number of Observations in Each Group ^a	Assumed True Effect (Expressed as a Percentage of the Mean)			
	4%	6%	8%	10%
200	0.20	0.33	0.48	0.64
400	0.30	0.52	0.73	0.88
600	0.40	0.67	0.86	0.96
800	0.48	0.77	0.94	0.99
1,000	0.56	0.84	0.97	1.00
1,200	0.62	0.90	0.99	1.00

SOURCE: Table entries are power levels according to the table in A-12b, in Dixon and Massey, 1965, assuming a 95 percent confidence level and a one-tailed test.

NOTE: The outcome variable is assumed to have a mean of 80 percent and a standard deviation of 40 percent, based on a tabulation of the survey data.

^aEqual treatment and control sample sizes are assumed, so that total observations for the experimental and control groups are twice the numbers shown in the row headings.

RDA = recommended dietary allowance.

APPENDIX C

DATA ENTRY AND DATA EDITING PROCEDURES

MPR's subcontractor, National Analysts, performed the data entry and food-related data coding, with review and technical assistance from nutritionists from the U.S. Department of Agriculture (USDA). In this appendix, we describe the procedures used to perform these tasks.

A. DATA PREPARATION FOR SECTION I AND ASSOCIATED MATERIALS

Through a sequence of 52 questions, Section I of the survey instrument for the Alabama Cash-Out Evaluation obtained information on household composition, sources and amounts of income, expenditures by major category, participation in food-assistance programs, recipients' opinions of those programs, and the like. In constructing the evaluation's main data file, this information was processed jointly with information from the screening interview (the screener). The processing entailed the key-entry and verification of data from hard-copy survey instruments, followed by item-by-item data logic and consistency checks.

- *Data Entry*

Section I was key-entered and 100-percent verified in batches of ten document sets. A programmable entry system was used, which precluded inputting illegal values (for example, alpha and out-of-range numeric codes), at both the entry and verifying stages.

- *Data Editing*

Keyed and verified data records were forwarded to data cleaners, who built an initial data file, cumulating the records in sequence by interview identification number. Working in batches of 100 to 300 records, the data cleaners ran the initial file through a series of logic and edit checks and obtained error printouts, by household, of the problem cases. Each problem triggered a document look-up, that is, the source document was consulted to determine whether the information in the file was correct. If the file was wrong, it was adjusted to reflect the corrected information from the questionnaire.

All adjusted problem cases were run through the cleaning program until no errors were detected. The fully edited batch data records were then added to the final "clean" data file. Typically, each record was subjected to two interactions of cleaning processing--the initial and the adjusted run--before becoming resident on the final clean file; however, the cleaning process was repeated until all problem situations were resolved.

B. DATA PREPARATION FOR SECTION II AND ASSOCIATED MATERIALS

Section II of the survey instrument consists of the seven-day food-use recall. Associated with these data are items used to develop the food-use variables, such as information on the number and location of all meals eaten by members of the food consumption unit over the seven-day reporting period, guest meals and snacks, and the recording and the interviewing dates. These data were handled together with Section II entry and editing.

1. Data Entry

Section II data were entered through the data entry system used in the Nationwide Food Consumption Survey. Under this interactive process, the person entering the data is prompted to enter the letter and code number for the food item used; its form and variation; the quantity used (in decimals); the code number for the units used (as recorded on the survey instrument); its source; the quantity purchased (in decimals), if bought, and the code number for the units purchased; the amount paid (in dollars and cents); and other information. Detailed information from the USDA Human Nutrition Information System (HNIS) household food-use coding system is programmed into the entry system, so that any unusual input is challenged (for example, frozen carrots untrimmed) for accuracy at the entry stage. The program is also designed to accept partially coded and uncoded data. In particular, the data entry person can key in alphabetic information for foods not in the system, as well as quantities and units that are recorded in nonstandard measurements.

Section II information was key-entered onto diskettes in batches of one to two households. These data were cumulated into a food-item file on a daily basis. A computer printout representation of this portion of the questionnaire was prepared for each household. A verifier visually inspected each field of data, and the printout information was compared against the questionnaire data line-by-line. Any discrepancies between the data keyed into the file and the questionnaire were rectified and noted on the printout. Both the annotated printouts and questionnaire documents were then forwarded for data cleaning.

2. Data Edits

Section II and related data were subjected to several levels of data editing and preparation. The first level was the preliminary data-file cleaning. Working with batches of approximately 20 records, the data cleaner reviewed the annotated printout of the questionnaire and an "Errors and Warnings Report" for each individual questionnaire. Data problems were identified either as warnings (in the case of unusual amounts) or errors (in the case of unallowable codes). Other problems that were flagged at this stage were the absence of a code on the nutrient file corresponding to the code on the data entry file, and weight or nutrient levels that exceeded prespecified edit checks.

To resolve problems, the data cleaner consulted the primary source document (the screener or the main survey instrument), the computer printout, and manuals provided by the USDA. Any adjustments to the record were entered directly into the file and noted on the computer printout. Food coding and weight problems that could not be resolved from the data (or by contacts in the field), were written up as technical assistance requests and were forwarded to FNS/HNIS for review.

The Section II record was run through the cleaning process iteratively until no errors remained in the "Errors and Warning Report." These data were then made resident on a cleaned data file, and were ready for final preparation (for example, mean price calculation). An overview of the cleaning activities for Section II is presented below.

a. Range Checks

We used two types of range checks. *Warnings* indicated that the response keyed in (or calculated, if the item was a derived variable) was higher or lower than the expected range of values established for the item. Development of the upper (and lower) limits was based on previous empirical findings, as well as on logically derived cut-off values. Warnings did not necessarily signify unacceptable values. Instead, they indicated unusual responses that should be reviewed critically before being accepted at face value (for example, individual food items that were purchased for more than \$25.00). *Errors* indicated that the imputed or derived value was unacceptable. Although rare,

this type of error could occur when a value response was inconsistent with the contingency skip in the questionnaire.

b. Linkage Errors

Linkage errors occurred when the food item specified in the questionnaire could not be linked to the HNIS nutrient data file. Because linkage errors, unlike warnings, could not be allowed in the final output file, the data cleaners reviewed the printout in each case to determine what changes needed to be made. Typically, linkage errors occurred when interviewers used verbal descriptions, rather than existing food codes, to report food use. Linkage errors generated requests to the USDA either to determine the existing food codes into which the item was to be classified or to provide new food codes.

Linkage errors also resulted when quantity information was missing. In the rare cases in which this occurred, quantity unit estimates were generated for use with specific food items.

c. Weight-Check Warnings

For 154 of the most commonly used food items, special attention was given to ensure their correct entry into the file. Upper boundaries were set on the basis of empirical data by HNIS for the quantities used for these items. If the amount used of a food (regardless of the form in which the quantity was reported) exceeded the cut-off, reported in pounds, then the item was identified for closer inspection by the data cleaner.

The data cleaners examined the quantities used in the context of the amount consumed per equivalent nutrition unit (ENU), as well as for the household as a whole. If the food item and quantities were coded properly, then the unusually large amount was allowed to stand. If a problem was noted, the data were corrected and recycled through the cleaning program.

d. Nutrient Warnings

As with the weight-check warnings, document look-ups were triggered when a household's nutrient consumption was outside the edit-check limits set by the USDA. The program determined the quantity of key nutrients used by each household. After standardizing for household composition and the number of meals eaten at home by the household, these nutrient-availability estimates were compared with the households' recommended dietary allowances. For five key nutrients, both upper and lower cut-offs were established that, if exceeded, signaled the data cleaner to re-examine the printout for the household food-use section of the interview.

Nutrient	Low Limit	High Limit
Food Energy	0.50	3.00
Calcium	0.20	3.50
Vitamin A	0.20	3.50
Riboflavin	0.20	3.50
Ascorbic Acid	0.30	6.00

To aid the data cleaners, the computer printout provided information about the individual food items that were highest in that nutrient and, potentially, the likely source of the error.

e. Special Check Warnings

In addition to the routine edit checks, several additional special warnings were programmed for the Alabama data. First, the data were checked to ensure that the food-use period was exactly seven days, and that no interview was performed more than 48 hours after the end of the food-use reporting period. Second, any missing information about the number and location of meals in the food-use period triggered a document look-up and review. If appropriate values for the missing data could not be determined, the interview was voided.

Several additional edits examined the completeness and reasonableness of the food-use information. These include:

- Total number of food items reported--any interview schedule with less than 16 or more than 79 separate food items reported was reviewed for accuracy of input.
- Total number of food pages of the survey instrument on which food items were reported--any schedule with reported food items on fewer than six pages was reviewed for accuracy.
- Total number of gift food items reported--any schedule with more than nine food items received as a gift or in-lieu of pay was examined.
- Total number of home-produced food items reported--any schedule with more than five food items reported as home-produced was reviewed.
- Total number of WIC-purchased food items--any schedule with more than six food items acquired with WIC vouchers was examined for accuracy.
- Total number of missing prices--any schedule with more than nine missing prices for purchased foods was reviewed for acceptability.
- Money value of food used per ENU--if, after the missing prices were imputed, the money value of *all* food used was (1) \$8.00 or less, or (2) \$80.00 or more per ENU, the data were reviewed item-by-item.

3. Mean Price/Missing Price Imputation

The average reported prices of various kinds of food in the data set were used in two important ways in the file editing and file creation process. First, we computed the mean price for each kind of food, after which we examined "outlier" observations that were more than two standard deviations from the means. This process was very useful in identifying errors in the quantity and food-code information, which were common, as well as errors in the price data. Second, we used average prices to impute missing price information.

To determine the money value of food used, all foods used had to be assigned a unit price, regardless of whether they had been purchased. To derive a reasonable and stable imputed value for missing price data, we applied two steps: (1) extreme-value checking, and (2) imputation.

a. Step 1--Extreme-Value Checking

A program identified the mean price per pound per food item and identified those values either (1) two standard deviations above the mean, or (2) two standard deviations below *or* 10 percent below the mean. All of these values were designated as "outliers" and were reviewed individually. For many of the observations, reviews revealed no apparent error; these observations were allowed to stand. For the other observations, the incorrect entry of quantity information onto the data file was found to be the most common type of error. Such mistakes were corrected.

We then performed similar checks on a second version of the data file, using means calculated after the first round of corrections had been implemented. In this second round of checks, we checked price observations that were at least three standard deviations above or two standard deviations below the mean. We also examined food items for which the standard deviations could not be calculated because only one observation in the data set existed, but for which the prices appeared to be particularly high or particularly low.

In addition, we examined other observations if the maximum price per pound for the food item was more than ten times the lowest price. The outlier prices were reviewed and corrected, as appropriate.

Finally, we reviewed all foods for which the price per pound was greater than \$3 *and* the number of observations was three or less. This criterion was meant to identify incorrect price observations that had not been caught by the criteria outlined above. Incorrect values were corrected, as appropriate.

b. Step 2--Imputation

After the editing had been implemented, we imputed missing prices. To impute prices, we followed the procedures specified in this subsection.

For most foods, we used the mean prices from observations with nonmissing price data for the relevant foods (excluding outliers) to impute the missing prices (assuming that there were

observations with nonmissing prices for the relevant foods).¹ For each food for which the number of missing values exceeded the number of observations for which data were available, the mean price, excluding outliers, was examined to determine whether the mean price was reasonable. If the mean price (without outliers) *was* reasonable, we used the mean price (without outliers) to impute the missing price. If the mean price was not reasonable, a field person checked the prices of that food item in supermarkets in the survey's geographic area that serve high proportions of low-income households. (Only a very small number of foods met this criterion.)

We followed a two-step process for foods in the data set for which there were no nonmissing price data. First, the food code in the interview was examined to identify possible coding errors. Second, if no error was identified, a local field person checked prices in supermarkets in a low-income area.

C. IMPUTING AND EDITING OF INCOME AND FOOD STAMP BENEFIT AMOUNTS

We subjected the amounts for income sources and food stamp benefits to two types of editing. First, we imputed missing income amounts by using regression procedures or simply by imputing the mean of the sample distribution. Second, we replaced the self-reported food stamp, AFDC, Social Security, and Supplemental Security Income (SSI) amounts with amounts obtained from program records.

1. Imputing Missing Income Amounts

The questionnaire contains questions about 17 different sources of income. Respondents were asked: (1) whether anyone in the household received a specific type of income, (2) if anyone did, who the recipient was, and (3) what amount was received. When the person receiving the source was not identified, the amount was not ascertained.

¹In some instances, in which the number of price observations for a given item was very low, that item was combined with similar items in the data set to obtain a mean price estimate. (For instance, the price observations for different types of canned vegetable baby food might be combined.)

The three types of missing information have very different prevalence rates. Information on whether a source of income was received at all (type 1), as well as the identity of the recipient (type 2), was missing in a total of one and zero cases, respectively. By contrast, information on the amount received was missing in a total of 60 cases in 46 different households. Given the relative infrequency of the first two types of missing information, we implemented no formal imputation procedure for these cases. When the first type of information was missing, we assumed that the source was not received.

Table C.1 shows how we handled missing information on amounts of income received. We used different solutions according to the income source. For cases with a large number of observations on reported amounts (namely, earnings and retirement income), we used a regression approach; for the other cases, we used a more ad hoc approach.

We examined the hard-copy instruments for each of the three cases with the highest reported incomes in the raw data. In one case, we deleted \$500, which had been transferred from one household member to another as room rent. In another case, we excluded compensation for surgery and flood damage. The third case was found to be reasonable.

2. Replacement of Food Stamp, AFDC, Social Security, and SSI Amounts with Amounts from Program Records

To minimize potential problems of income misreporting, we replaced the self-reported amount for food stamp benefits, AFDC, Social Security, and SSI with the amounts obtained from the food stamp office administrative records for the interview month. To avoid treating observations differently according to their treatment or control status, this replacement was performed for both check and coupon recipients.

TABLE C.1

PREVALENCE OF MISSING INCOME AMOUNTS,
AND SOLUTIONS ADOPTED TO REPLACE THEM

Type of Income	Persons with Reported Amounts	Persons with Missing Amounts	Solution Used to Replace Missing Amounts (or Outliers)
Wage and Salary	800	29	regression imputation (see Section A.1)
Business Income	18	0	none
Social Security	1,054	18	regression imputation (see Section A.2)
Other Retirement Benefits	58	2	regression imputation (see Section A.2)
AFDC	612	1	assigned the mean (= \$119)
SSI	871	5	assigned the mean (= \$218)
Veteran Benefits	89	3	assigned the mean (= \$230)
Estate, Interest, Dividends	13	0	none
Other Income (Insurance, Gift, Prizes)	54	0	none
UI/Worker Compensation	59	0	none
General Assistance	28	1	assigned the mean (= \$104)
Housing Assistance	146	0	none
Alimony	4	0	none
Child Support	285	1	assigned the mean (= \$121)
Foster Care	3	0	none
Rental Income	17	0	none
Farm Income	0	0	none

SOURCE: Evaluation of the Alabama Food Stamp Cash-Out Demonstration, household survey.

AFDC = Aid to Families with Dependent Children; SSI = Supplemental Security Income; UI = Unemployment Insurance.

APPENDIX D

FOCUS GROUP DISCUSSION METHODOLOGY

The household survey described in Appendix A obtained rigorous quantitative information about the impacts of cash-out on recipient's food expenditures, food use, and nutrient availability. The survey also obtained some qualitative information on recipients' check-cashing experiences, perceptions about what is good and not good about checks and coupons, and relative preferences for checks or for coupons when budgeting household expenditures.

The focus group study was designed to provide complementary qualitative information about recipients' experiences with and attitudes toward check and coupon benefits. The focus group discussions explored several of the topics that were included in the recipient survey in greater depth, such as relative preferences for checks or coupons and experiences with and problems cashing food checks. The discussions also obtained information on several important issues that were not covered in the survey, including the costs incurred by recipients to participate in the Food Stamp Program (FSP) under each form of issuance and recipients' perceptions of the prevalence of food stamp fraud.

Focus groups entail discussions in which a small number of respondents talk about topics of special importance to an investigation. A focus group discussion is conducted as an open conversation, in which each respondent makes comments, asks questions, and reacts to other participants' comments and questions. The discussion is guided by a moderator, who ensures that all topics of interest are discussed by the group and that participants do not talk about topics unrelated to the study.¹

This appendix describes the research design for the Alabama Food Stamp Cash-Out Demonstration focus groups. Section A describes the research sample. Section B describes the data collection procedures. Section C describes the methods used to analyze the discussions.

¹See Krueger (1988), Morgan (1988), or Goldman and Schwartz-McDonald (1987) for a discussion of focus group techniques.

A. THE RESEARCH SAMPLE

This report draws on four focus group discussions that were conducted in late November of 1990, in Alabama. Two groups were simultaneously conducted in Fayette County on November 29, and two groups were simultaneously conducted in downtown Birmingham on November 30.

1. Selection of Participants

Focus group participants were identified, screened, and recruited from master lists of FSP participants. To be eligible for the focus groups, participants had to meet *all* of the following criteria:

- They had to be served by either the Jefferson County main food stamp office (that is, Birmingham) or the Fayette office.
- They had to be members of the initial cash-out sample.
- They had to have been active food stamp recipients at the end of March of 1990 (that is, prior to the beginning of cash issuance in May)
- They had to have received food stamps in September of 1990 and must have been active food stamp recipients at the end of September.
- The first listed member of the household had to be either white or black.

In addition, because the recruiting was conducted by telephone, the participants had to have access to a working telephone, with a listed number that was known to the food stamp office.

Recipients who passed this screen were stratified according to three binary variables--race, age, and an indicator for benefit size (whether the benefit was \$100 or more)--for a total of eight cells.²

Participants were then randomly selected from each cell, and recruited.

On a more informal basis, we recruited participants according to the amount of their food stamp benefit. The boundary for this variable was a benefit of "less than \$100" and "\$100 or more." We

²The age breakdown referred to the fact that the household either had a food stamp recipient 60 years of age or older ("elderly") or that the household did not have a food stamp recipient 60 years of age or older ("nonelderly").

computed that 76 percent of food stamp households in Jefferson County and 54 percent in Fayette County receive a monthly benefit of \$100 or more.

Between 8 and 12 persons is generally accepted as an optimal size for focus group discussions. To protect ourselves against a high no-show rate, we recruited substantially more persons for the focus groups than we needed. We recruited 24 participants in Birmingham, and 20 in Fayette County.

Participants for the focus groups were recruited by telephone approximately ten days before the scheduled session. The telephone contacts were made by two field interviewers who were working on the household food-use survey and who also had extensive experience as telephone interviewers. The interviewers were given lists of program participants, which included telephone numbers, addresses, race, age, and benefit level. If any of the potential participants indicated that lack of transportation would preclude their participation, the interviewer was authorized to offer a financial incentive (\$8) to a friend or neighbor to provide transportation. Alternatively, the incentive was offered to defray child care costs, if the respondent would not have been able to attend without such help. This \$8 was offered in addition to a \$20 cash honorarium, which was offered in appreciation of the respondent's participation in the discussion.

A few days before the sessions began, a reminder letter was mailed to each of the individuals who had been recruited. The letter reinforced each individual's verbal commitment to participate and was a tangible reminder of the details of the focus group. A reminder telephone call was made to each participant 24 to 36 hours before the scheduled session. At that time, the individual's child care or transportation arrangements were confirmed.

2. Recipients Attending the Focus Group Discussions

Of the 20 participants recruited in Fayette, 18 showed up. One moderator led a group of ten participants, most of whom were younger than age 60, and the other moderator led a group of eight older food stamp recipients, most of whom were 60 years of age or older. The groups were divided

according to age, because the needs of older participants often differ from needs of younger participants (irrespective of discussion subject matter), and older participants may become intimidated by younger participants.

The Fayette County focus group participants closely matched the county's food stamp population on several key characteristics. Seventy percent of food stamp households in Fayette County have a white head of household, and 66 percent of our participants were white. Forty percent of households in Fayette County have a food stamp recipient 60 years of age or older. In our discussion groups, 38 percent of the participants were 60 years of age or older. Fifty-four percent of food stamp households in Fayette County receive a benefit of \$100 or more, and 61 percent of our participants fell into this category.

In Birmingham, we had a much higher no-show rate; only 10 of 24 recruits showed up. Two canceled the morning of the group, because of unexpected transportation difficulties. Furthermore, the participants were not nearly as representative of all food stamp households in Jefferson County as were those in Fayette County. Only 18 percent of the Jefferson County food stamp households are headed by a white food stamp recipient, whereas 40 percent of our participants were white. Similarly, only 17 percent of food stamp households have a food stamp recipient 60 years of age or older; 30 percent of our participants were in this age category. We had better representation as far as the food stamp benefit amount was concerned. Seventy-six percent of food stamp households in Jefferson County receive benefits of \$100 or more, as did 75 percent of participant households.

B. DATA COLLECTION PROCEDURES

The Fayette County focus group sessions were conducted in the conference room of the Fayette Civic Center, which is a renovated elementary school. The Birmingham groups were conducted in a classroom at the Urban League. The primary consideration in selecting these facilities was the ease with which a participant could find the location. Furthermore, we believed that participants would perceive these locations to be neutral (that is, no stigma would be attached to the facility).

The meeting rooms in which the groups took place were arranged to permit audio recording of the sessions. Participants were comfortably seated around large, rectangular tables. The door was kept closed during the focus group to maintain the confidentiality of the participants. Light refreshments were available before the start of the discussion.

Each session was attended by the focus group moderator (two moderators per location), one additional member of the research team (who served as an observer), and a household food-use survey senior supervisor (who rescreened participants, organized the refreshments, monitored the recording equipment, and distributed the honoraria). The sessions lasted between one and one-half and two hours. Participants were given their cash honoraria (\$20) at the conclusion of the session.

The focus group discussion sessions consisted of a series of open-ended questions about which the participants were encouraged to talk among themselves. Each moderator used the same topic guide to pose questions in the seven key areas of interest: (1) the respondents' initial reactions to the change from coupons to checks, (2) the role of checks versus coupons in household budgeting, (3) respondents' preferences for the benefit form and reasons for the preferences, (4) the check-cashing experiences and problems of recipients, (5) the costs, including stigma, of participating in the FSP under both forms of issuance, (6) recipients' knowledge of food stamp fraud, and (7) suggestions to improve the issuance of food stamp benefits.

C. THE ANALYTIC APPROACH

The commentary of the four focus groups generated nearly 100 pages of transcripts, which were analyzed by the principal author of the report of focus group findings, who was one of the moderators. The analysis was then reviewed by the second author (also a moderator) and by the director of the Alabama Food Stamp Cash-Out Demonstration, who had observed the groups, to cross-validate the analytic conclusions.

All methods of collecting data from individuals have strengths and weaknesses, and focus groups are no exception. The primary advantage of focus groups over a structured interview for gathering

the information we were seeking is the ability that focus groups afford to the analyst to probe and explore in greater depth individuals' initial responses to questions. Another, closely related, advantage over one-on-one structured interviewing is that the group interaction achieved in focus group discussions usually reduces the natural inhibitions most individuals experience when being questioned by strangers, the end result being greater openness by respondents. However, the major disadvantage of focus groups is that one cannot draw formal inferences from the data, because focus groups involve small samples that are typically not fully representative of the populations from which they were selected, and because the possibility of group suasion through the discussion process precludes treating focus group members' views as "independent" observations.

APPENDIX E
REGRESSION ESTIMATES

This appendix presents regression estimates that complement the analysis described in Chapter IV and in Appendix F. In Chapter IV, we analyzed the effect of cash-out on food use and nutrient availability by comparing the mean values of the variable representing each outcome of interest in the two samples--that is, by using simple differences in means. In the first part of this appendix, we present the regression-adjusted counterparts of these differences in means.

We estimate a regression model for each outcome, using the full sample of check and coupon households. In addition to household demographic and economic characteristics that are thought to affect the particular outcome, we include among the regressors a dummy variable representing the check or coupon status of the household. The estimated coefficient on this dummy variable is the regression-adjusted estimate of the effect of cash-out on the dependent variable.

Table E.1 compares the regression-adjusted estimates of cash-out effects with their difference-in-means counterparts. The comparison is carried out for three measures of the money value of food used at home per equivalent nutrition unit (ENU) (total food used, purchased food used, and nonpurchased food used), for two macronutrients (food energy and protein), and for seven micronutrients (vitamin A, vitamin C, vitamin B₆, folate, calcium, iron, and zinc).

Table E.2 contains the sample means and standard deviations for all of the explanatory variables used in the regressions. Note that the statistics presented in this table reflect a 7 percent sales tax offset that the State of Alabama added to the food stamp benefits of check recipients. They also reflect the division of all cash benefit and income amounts by one plus the county-specific cumulative sales tax rate. This latter adjustment facilitates the direct comparison of estimates of the effects of food stamp coupons, food stamp checks, and ordinary cash income on food consumption.

Tables E.3 through E.8 contain the full regression estimates for six different outcomes: (1) the money value of all food used at home per ENU (Table E.3), (2) the money value of purchased food used at home per ENU (Table E.4), (3) the money value of nonpurchased food used at home per ENU (Table E.5), (4) food energy as a percentage of the recommended dietary allowance (RDA)

(Table E.6), (5) protein as a percentage of the RDA (Table E.7), and (6) calcium as a percentage of the RDA (Table E.8).¹ Each regression includes a dummy variable equal to one if the household receives check benefits. The estimated coefficient of this dummy variable is the regression-adjusted estimate of the effect of cash-out presented in Table E.1.

In the second part of this appendix (Tables E.9 through E.12), we present the full regression results that support the estimates of the marginal propensities to consume (MPCs) discussed in Appendix F. (See Appendix F for a definition of the MPC concept.) We present results for two distinct dependent variables: (1) the money value of purchased food used at home, and (2) the combined money value of purchased and nonpurchased food used at home. For each dependent variable, we present two algebraically equivalent models: the first includes among the regressors the amount of the food stamp check benefit (for check recipients only, zero otherwise) and the amount of the food stamp coupon benefit (for coupon recipients only, zero otherwise). This is the specification corresponding to equation (1) in Appendix F. The second table for each dependent variable contains the results for a model that includes a food stamp benefit amount for all observations, as well as the interaction between the food stamp benefit amount and the check dummy variables. This version of the model allows the direct estimation of the difference between the MPC out of coupons and out of checks, which is presented in the fourth row of Table F.1.

¹We present the full results for one micronutrient only, because the results for the other micronutrients are very similar. We present the regression-adjusted estimates of the effects of cash-out on all seven of the selected micronutrients in Table E.1.

TABLE E.1

COMPARISON OF DIFFERENCE-IN-MEAN AND REGRESSION-ADJUSTED
ESTIMATES OF THE EFFECT OF CASH-OUT ON FOOD USE AND
NUTRIENT AVAILABILITY

Outcome Measure	Regression-Adjusted Estimate	Difference-in-Mean Estimate
Money Value of Food Used at Home per ENU	0.14 (0.20)	-0.16 (0.21)
Money Value of Purchased Food per ENU	0.07 (0.09)	-0.23 (0.31)
Money Value of Nonpurchased Food per ENU	0.08 (0.33)	0.07 (0.29)
Food Energy as Percentage of RDA	2.16 (0.68)	0.73 (0.22)
Protein as Percentage of RDA	2.66 (0.52)	-0.81 (0.15)
Vitamin A as Percentage of RDA	-1.49 (0.16)	-2.39 (0.26)
Vitamin C as Percentage of RDA	-3.19 (0.41)	-4.77 (0.60)
Vitamin B ₆ as Percentage of RDA	1.84 (0.56)	0.29 (0.09)
Folate as Percentage of RDA	4.09 (0.74)	2.25 (0.39)
Calcium as Percentage of RDA	3.48 (1.23)	3.74 (1.23)
Iron as Percentage of RDA	0.72 (0.16)	0.11 (0.02)
Zinc as Percentage of RDA	-0.30 (0.11)	-1.59 (0.56)

SOURCE: Evaluation of the Alabama Cash-Out Demonstration, household survey.

NOTE: One-tailed statistical tests were performed on all estimates shown in this table. t-Statistics are shown in parentheses.

ENU = equivalent nutrition unit; RDA = recommended dietary allowance.

TABLE E.2
MEANS AND STANDARD DEVIATIONS OF VARIABLES USED
IN THE REGRESSIONS

Variable	Mean or Proportion	Standard Deviation
Check Dummy (Check=1)	0.528	0.499
Food Stamp Benefit Amount ^a	18.189	10.056
FCU Income ^b	58.684	44.567
FCU Size in AME	2.141	1.370
Income of Non-FCU Members ^b	4.379	29.122
Sampled Person Is Black	0.683	0.465
Sampled Person Is Hispanic	0.001	0.030
Sampled Person Didn't Complete 8th Grade	0.281	0.450
Sampled Person Completed High School	0.406	0.491
Sampled Person Less Than 30 Years Old	0.243	0.429
Children Present in the FCU	0.602	0.489
Elderly Present in the FCU	0.250	0.433
Female Head Present in the FCU	0.873	0.333
Urban County	0.476	0.500

SOURCE: Evaluation of the Alabama Cash-Out Demonstration, household survey.

NOTE: All income and benefit amounts are measured in dollars per AME per week.

AME = adult male equivalent; FCU = food consumption unit.

^aThe check benefit amount includes an additional 7 percent payment by the State of Alabama to offset sales taxes on cash purchases of food. The adjusted check benefit amount has also been divided by 1 plus the applicable sales tax rate on cash purchases of food. The sales tax rate varies by county.

^bThe income variables have been divided by 1 plus the applicable sales tax rate on cash purchases of food.

TABLE E.3

REGRESSION ESTIMATES FOR THE MONEY VALUE OF FOOD USED AT HOME
PER ENU, MODEL WITH CHECK DUMMY

Variable	Coefficient	Standard Error	t-Statistic
Constant	31.988	2.172	14.729
Check Dummy (Check=1)	0.142	0.722	0.197
Food Stamp Benefit Amount	0.359	0.050	7.114
FCU Income	0.069	0.012	5.666
FCU Size in AME	-3.617	0.387	9.339
Income of Non-FCU Members	0.031	0.013	2.471
Sampled Person Is Black	1.670	0.855	1.953
Sampled Person Is Hispanic	-2.363	12.196	0.194
Sampled Person Didn't Complete 8th Grade	-0.940	1.054	0.892
Sampled Person Completed High School	-0.334	0.881	0.379
Sampled Person Less Than 30 Years Old	-1.911	0.981	1.947
Children Present in the FCU	2.007	1.260	1.593
Elderly Present in the FCU	-0.059	1.161	0.051
Female Head Present in the FCU	-0.119	1.146	0.104
Urban County	-0.188	0.803	0.234
Number of Observations:	2289		
Mean of the Dependent Variable:	36.33		
R-squared:	0.129		

SOURCE: Evaluation of the Alabama Food Stamp Cash-Out Demonstration, household survey.

NOTE: All income and benefit amounts are measured in dollars per AME per week.

ENU = equivalent nutrition unit; AME = adult male equivalent; FCU = food consumption unit.

TABLE E.4

REGRESSION ESTIMATES FOR THE MONEY VALUE OF PURCHASED FOOD
PER ENU, MODEL WITH CHECK DUMMY

Variable	Coefficient	Standard Error	t-Statistic
Constant	28.145	2.078	13.543
Check Dummy (Check=1)	0.065	0.691	0.094
Food Stamp Benefit Amount	0.331	0.048	6.865
FCU Income	0.073	0.012	6.212
FCU Size in AME	-3.381	0.371	9.124
Income of Non-FCU Members	0.020	0.012	1.625
Sampled Person Is Black	2.970	0.818	3.630
Sampled Person Is Hispanic	-0.646	11.669	0.055
Sampled Person Didn't Complete 8th Grade	-1.946	1.008	1.929
Sampled Person Completed High School	-0.722	0.843	0.856
Sampled Person Less Than 30 Years Old	-3.091	0.939	3.292
Children Present in the FCU	1.418	1.206	1.176
Elderly Present in the FCU	-0.559	1.111	0.503
Female Head Present in the FCU	0.808	1.096	0.737
Urban County	0.762	0.768	0.992
Number of Observations:	2289		
Mean of the Dependent Variable:	33.54		
R-squared:	0.130		

SOURCE: Evaluation of the Alabama Food Stamp Cash-Out Demonstration, household survey.

NOTE: All income and benefit amounts are measured in dollars per AME per week.

ENU = equivalent nutrition unit; AME = adult male equivalent; FCU = food consumption unit.

TABLE E.5

REGRESSION ESTIMATES FOR THE MONEY VALUE OF NONPURCHASED FOOD
PER ENU, MODEL WITH CHECK DUMMY

Variable	Coefficient	Standard Error	t-Statistic
Constant	3.843	0.702	5.473
Check Dummy (Check=1)	0.077	0.234	0.332
Food Stamp Benefit Amount	0.028	0.016	1.688
FCU Income	-0.003	0.004	0.860
FCU Size in AME	-0.236	0.125	1.882
Income of Non-FCU Members	0.011	0.004	2.832
Sampled Person Is Black	-1.300	0.276	4.701
Sampled Person Is Hispanic	-1.717	3.944	0.435
Sampled Person Didn't Complete 8th Grade	1.006	0.341	2.952
Sampled Person Completed High School	0.387	0.285	1.359
Sampled Person Less Than 30 Years Old	1.180	0.317	3.720
Children Present in the FCU	0.589	0.408	1.445
Elderly Present in the FCU	0.501	0.375	1.333
Female Head Present in the FCU	-0.927	0.371	2.501
Urban County	-0.950	0.260	3.659
Number of Observations:	2289		
Mean of the Dependent Variable:	2.787		
R-squared:	0.044		

SOURCE: Evaluation of the Alabama Food Stamp Cash-Out Demonstration, household survey.

NOTE: All income and benefit amounts are measured in dollars per AME per week.

ENU = equivalent nutrition unit; AME = adult male equivalent; FCU = food consumption unit.

TABLE E.6

REGRESSION ESTIMATES FOR THE DAILY AVAILABILITY OF
FOOD ENERGY PER ENU AS A PERCENTAGE OF THE RDA,
MODEL WITH CHECK DUMMY

Variable	Coefficient	Standard Error	t-Statistic
Constant	149.456	9.584	15.594
Check Dummy (Check=1)	2.158	3.187	0.677
Food Stamp Benefit Amount	1.169	0.222	5.258
FCU Income	0.203	0.054	3.747
FCU Size in AME	-11.500	1.709	6.728
Income of Non-FCU Members	0.092	0.055	1.666
Sampled Person Is Black	10.100	3.773	2.677
Sampled Person Is Hispanic	-17.877	53.818	0.332
Sampled Person Didn't Complete 8th Grade	-0.292	4.651	0.063
Sampled Person Completed High School	-7.340	3.889	1.887
Sampled Person Less Than 30 Years Old	-13.426	4.329	3.101
Children Present in the FCU	11.498	5.562	2.067
Elderly Present in the FCU	-3.444	5.124	0.672
Female Head Present in the FCU	3.205	5.057	0.634
Urban County	-14.967	3.543	4.224
Number of Observations:	2289		
Mean of the Dependent Variable:	161.84		
R-squared:	0.072		

SOURCE: Evaluation of the Alabama Food Stamp Cash-Out Demonstration, household survey.

NOTE: All income and benefit amounts are measured in dollars per AME per week.

ENU = equivalent nutrition unit; RDA = recommended dietary allowance; AME = adult male equivalent; FCU = food consumption unit.

TABLE E.7

REGRESSION ESTIMATES FOR THE DAILY AVAILABILITY
OF PROTEIN PER ENU AS A PERCENTAGE OF THE RDA,
MODEL WITH CHECK DUMMY

Variable	Coefficient	Standard Error	t-Statistic
Constant	208.683	14.742	14.155
Check Dummy (Check=1)	2.665	5.145	0.518
Food Stamp Benefit Amount	2.117	0.321	6.601
FCU Income	0.184	0.084	2.184
FCU Size in AME	-21.361	3.149	6.782
Income of Non-FCU Members	0.137	0.085	1.608
Sampled Person Is Black	36.680	6.090	6.023
Sampled Person Is Hispanic	20.359	86.882	0.234
Sampled Person Didn't Complete 8th Grade	-6.744	7.507	0.898
Sampled Person Completed High School	-7.623	6.282	1.214
Sampled Person Less Than 30 Years Old	-7.323	7.202	1.017
Children Present in the FCU	37.752	8.869	4.257
Elderly Present in the FCU	-18.510	8.162	2.268
Female Head Present in the FCU	2.785	8.273	0.337
Urban County	-6.594	5.722	1.152
Number of Observations:	2289		
Mean of the Dependent Variable:	258.55		
R-squared:	0.125		

SOURCE: Evaluation of the Alabama Food Stamp Cash-Out Demonstration, household survey.

NOTE: All income and benefit amounts are measured in dollars per AME per week.

ENU = equivalent nutrition unit; RDA = recommended dietary allowance; AME = adult male equivalent; FCU = food consumption unit.

TABLE E.8

REGRESSION ESTIMATES FOR THE DAILY AVAILABILITY OF
CALCIUM PER ENU AS A PERCENTAGE OF THE RDA,
MODEL WITH CHECK DUMMY

Variable	Coefficient	Standard Error	t-Statistic
Constant	152.339	9.076	16.784
Check Dummy (Check=1)	3.476	2.832	1.228
Food Stamp Benefit Amount	0.862	0.291	2.962
FCU Income	0.144	0.066	2.196
FCU Size in AME	-4.677	0.946	4.946
Income of Non-FCU Members	0.286	0.070	4.112
Sampled Person Is Black	-22.038	3.364	6.550
Sampled Person Is Hispanic	-39.459	47.830	0.825
Sampled Person Didn't Complete 8th Grade	7.364	4.133	1.782
Sampled Person Completed High School	-1.582	3.458	0.458
Sampled Person Less Than 30 Years Old	-10.990	3.724	2.951
Children Present in the FCU	-5.508	5.120	1.076
Elderly Present in the FCU	-0.291	4.595	0.063
Female Head Present in the FCU	-11.928	4.453	2.679
Urban County	-13.611	3.147	4.325
Number of Observations:	2289		
Mean of the Dependent Variable:	119.58		
R-squared:	0.147		

SOURCE: Evaluation of the Alabama Food Stamp Cash-Out Demonstration, household survey.

NOTE: All income and benefit amounts are measured in dollars per AME per week.

ENU = equivalent nutrition unit; RDA = recommended dietary allowance; AME = adult male equivalent; FCU = food consumption unit.

TABLE E.9

REGRESSION ESTIMATES FOR THE MONEY VALUE OF PURCHASED FOOD
PER ENU, MODEL WITH CHECK AND COUPON BENEFIT AMOUNT

Variable	Coefficient	Standard Error	t-Statistic
Constant	26.335	1.911	13.779
Check Benefit Amount	0.311	0.047	6.559
Coupon Benefit Amount	0.307	0.048	6.417
FCU Income	0.073	0.012	6.213
FCU Size in AME	-3.160	0.346	9.126
Income of Non-FCU Members	0.020	0.012	1.628
Sampled Person Is Black	2.776	0.764	3.631
Sampled Person Is Hispanic	-0.572	10.908	0.052
Sampled Person Didn't Complete 8th Grade	-1.817	0.943	1.927
Sampled Person Completed High School	-0.674	0.788	0.855
Sampled Person Less Than 30 Years Old	-2.891	0.878	3.294
Children Present in the FCU	1.328	1.127	1.178
Elderly Present in the FCU	-0.525	1.039	0.506
Female Head Present in the FCU	0.753	1.025	0.735
Urban County	0.712	0.718	0.991
Number of Observations:	2289		
Mean of the Dependent Variable:	31.35		
R-squared:	0.130		

SOURCE: Evaluation of the Alabama Food Stamp Cash-Out Demonstration, household survey.

NOTE: All income and benefit amounts are measured in dollars per AME per week.

ENU = equivalent nutrition unit; AME = adult male equivalent; FCU = food consumption unit.

TABLE E.10

REGRESSION ESTIMATES FOR THE MONEY VALUE OF PURCHASED FOOD
PER ENU, MODEL WITH INTERACTION BETWEEN CHECK DUMMY
AND FSP BENEFIT AMOUNT

Variable	Coefficient	Standard Error	t-Statistic
Constant	26.335	1.911	13.779
Interaction Between Check Dummy and Food Stamp Benefit Amount	0.004	0.031	0.143
Food Stamp Benefit Amount	0.307	0.048	6.417
FCU Income	0.073	0.012	6.213
FCU Size in AME	-3.160	0.346	9.126
Income of Non-FCU Members	0.020	0.012	1.628
Sampled Person Is Black	2.776	0.764	3.631
Sampled Person Is Hispanic	-0.572	10.908	0.052
Sampled Person Didn't Complete 8th Grade	-1.817	0.943	1.927
Sampled Person Completed High School	-0.674	0.788	0.855
Sampled Person Less Than 30 Years Old	-2.891	0.878	3.294
Children Present in the FCU	1.328	1.127	1.178
Elderly Present in the FCU	-0.525	1.039	0.506
Female Head Present in the FCU	0.753	1.025	0.735
Urban County	0.712	0.718	0.991
Number of Observations:	2289		
Mean of the Dependent Variable:	31.35		
R-squared:	0.130		

SOURCE: Evaluation of the Alabama Food Stamp Cash-Out Demonstration, household survey.

NOTE: All income and benefit amounts are measured in dollars per AME per week.

ENU = equivalent nutrition unit; FSP = Food Stamp Program; AME = adult male equivalent;
FCU = food consumption unit.

TABLE E.11

REGRESSION ESTIMATES FOR THE MONEY VALUE OF FOOD USED AT HOME
PER ENU, MODEL WITH CHECK AND COUPON BENEFIT AMOUNT

Variable	Coefficient	Standard Error	t-Statistic
Constant	29.965	1.997	15.002
Check Benefit Amount	0.341	0.050	6.863
Coupon Benefit Amount	0.329	0.050	6.579
FCU Income	0.070	0.012	5.671
FCU Size in AME	-3.381	0.362	9.343
Income of Non-FCU Members	0.031	0.013	2.478
Sampled Person Is Black	1.563	0.799	1.956
Sampled Person Is Hispanic	-2.126	11.40	0.186
Sampled Person Didn't Complete 8th Grade	-0.874	0.985	0.887
Sampled Person Completed High School	-0.311	0.823	0.378
Sampled Person Less Than 30 Years Old	-1.792	0.917	1.954
Children Present in the FCU	1.884	1.178	1.600
Elderly Present in the FCU	-0.062	1.085	0.057
Female Head Present in the FCU	-0.116	1.071	0.109
Urban County	-0.178	0.750	0.237
Number of Observations:	2289		
Mean of the Dependent Variable:	33.95		
R-squared:	0.129		

SOURCE: Evaluation of the Alabama Food Stamp Cash-Out Demonstration, household survey.

NOTE: All income and benefit amounts are measured in dollars per AME per week.

ENU = equivalent nutrition unit; AME = adult male equivalent; FCU = food consumption unit.

TABLE E.12

REGRESSION ESTIMATES FOR THE MONEY VALUE OF FOOD USED AT HOME
PER ENU, MODEL WITH INTERACTION BETWEEN CHECK DUMMY
AND FSP BENEFIT AMOUNT

Variable	Coefficient	Standard Error	t-Statistics
Constant	29.965	1.997	15.002
Interaction Between Check Dummy and Food Stamp Benefit Amount	0.012	0.032	0.358
Weekly Food Stamp Benefit Amount	0.329	0.050	6.579
FCU Income	0.070	0.012	5.671
FCU Size in AME	-3.381	0.362	9.343
Income of Non-FCU Members	0.031	0.013	2.478
Sampled Person Is Black	1.563	0.799	1.956
Sampled Person Is Hispanic	-2.126	11.400	0.186
Sampled Person Didn't Complete 8th Grade	-0.874	0.985	0.887
Sampled Person Completed High School	-0.311	0.823	0.378
Sampled Person Less Than 30 Years Old	-1.792	0.917	1.954
Children Present in the FCU	1.884	1.178	1.600
Elderly Present in the FCU	-0.062	1.085	0.057
Female Head Present in the FCU	-0.116	1.071	0.109
Urban County	-0.178	0.750	0.237
Number of Observations:	2289		
Mean of the Dependent Variable:	33.95		
R-squared:	0.129		

SOURCE: Evaluation of the Alabama Food Stamp Cash-Out Demonstration, household survey.

NOTE: All income and benefit amounts are measured in dollars per AME per week.

ENU = equivalent nutrition unit; FSP = Food Stamp Program; AME = adult male equivalent;
FCU = food consumption unit.

APPENDIX F

AN ECONOMETRIC ANALYSIS OF THE MONEY VALUE OF FOOD USED AT HOME

This appendix presents results from our estimation of an econometric model of the money value of food used at home by food stamp households. We consider two alternative measures of food use: (1) the money value of *purchased* food used at home, and (2) the money value of *all* food used at home. The second measure includes nonpurchased food, such as home-produced food and food obtained by redeeming a WIC voucher. In the model, household income, the form and amount of the food stamp benefit, and demographic variables explain the variation in food use among food stamp households. By using multivariate regression analysis to estimate the model with data for the sample of food stamp check and coupon recipients in Alabama, we obtain estimates of the effects of food stamp coupons, food stamp checks, and cash income on food use. Because the design of this study is experimental, these estimates are not essential to the evaluation of the effects of cash-out on food use. Nevertheless, they are quite useful for comparing the findings from this study with findings from the many studies of the effects of food stamps on household food use that have been based on nonexperimental data.

In this appendix, we first describe findings from previous studies. We then present and discuss the findings that are based on data from the household survey (including a discussion of the specification of the econometric model). Finally, we discuss the relationship between the econometric estimates and the findings from Chapter IV, which are based on difference-in-means estimates.

A. FINDINGS FROM PREVIOUS STUDIES

Only two studies have given researchers the opportunity to analyze directly the relative effects of food stamp checks and coupons on food-consumption behavior. These studies are the evaluation of the Puerto Rico Nutrition Assistance Program (Beebout et al., 1985; Devaney and Fraker, 1986) and the evaluation of the SSI/Elderly Food Stamp Cash-Out Demonstration (Blanchard et al., 1982; Butler, Ohls, and Posner, 1985). Neither study had an experimental design that entailed the random assignment of individual food stamp households to treatment (check) or control (coupon) status; instead, the researchers used econometric models to control for differences between check and

coupon recipients and to estimate the relative effects of checks and coupons on food-consumption behavior. The principal findings in the studies, that cash-out had no statistically significant effects on food expenditures or on the money value of food used by food stamp households, were based on comparisons of those econometric estimates.

Researchers in all of the other studies of the effects of food stamps on food consumption lacked data on actual recipients of food stamp checks.¹ Consequently, the researchers first used econometric models to estimate the effects of coupons and ordinary cash income on food consumption. They then inferred the potential effect of cash-out from the difference between the two estimates. However, the inference was based on the tenuous assumption that food stamp checks and ordinary cash income would have the same effect on food consumption.

The nonexperimental studies of the effects of food stamps and ordinary cash income on food consumption used various measures of household food consumption and household income. For example, Johnson, Burt, and Morgan (1981) and Basiotis et al. (1987) defined food consumption as the money value of all food (including nonpurchased food) used by a household from its home food supply. They defined income to include the imputed value of the nonpurchased food that was used by a household. Smallwood and Blaylock (1985) defined food consumption as the money value of purchased food used by a household from its home food supply. Consistent with this definition of food consumption, they omitted the value of nonpurchased food from their measure of income. Senauer and Young (1986) defined their measure of household food consumption on the basis of food expenditures, rather than food use, thus implicitly excluding nonpurchased food from their definition. They also excluded the value of nonpurchased food from their measure of income. The basic pattern of the studies cited was either to include the value of nonpurchased food in both the measure of food consumption and the measure of income, or to exclude it from both measures.

¹Fraker (1990) reviews many of the existing studies of the effects of food stamps on food consumption. These studies include the two that were based on data on recipients of checks and coupons, as well as a much larger number of studies for which no data on check recipients were available.

Either approach can be defended as a valid way of controlling for the presence of nonpurchased foods, thereby permitting the researchers to estimate the effect of food stamps on the money value of food used that was purchased or on expenditures for purchased food.

Virtually all of the studies have produced estimates of the effects of an additional dollar of food stamp coupons and of ordinary cash income on food consumption. These effects are frequently referred to as the *marginal propensity to consume food* (MPC) out of coupons and out of income. In his review of 17 nonexperimental studies, several of which produced multiple estimates of the MPC out of coupons and out of cash income, Fraker (1990) reported that most estimates of the MPC out of income are in the range .05 to .10, indicating that an additional dollar of income would prompt an average food stamp household to increase its consumption of food by an amount ranging from five cents to ten cents. Fraker also reported that most estimates of the MPC out of coupons are in the range .17 to .47. In each of the reviewed studies, the estimated marginal effect of coupons exceeds that of income, and, with only a few exceptions, the ratio of the estimate of the MPC out of coupons to the estimate of the MPC out of income is between 2 and 10. Thus, the consensus finding of these studies is that the marginal effect of food stamp coupons on food consumption is much stronger than that of ordinary cash income.²

If one were willing to assume that food stamp checks would have the same effect on food consumption as would ordinary cash income, then, on the basis of the consensus finding, one might infer that cash-out would greatly reduce the marginal effectiveness with which food stamp benefits increase food consumption by low-income households. The nonexperimental estimates imply that the

²In a paper that was circulated subsequent to Fraker's 1990 literature review, Levedahl (1991) reported on estimates of the MPC out of food stamp coupons and out of ordinary cash income, which he obtained by applying a trans-log econometric model to data from the 1979-80 Survey of Food Consumption in Low-Income Households. The sample mean value of the ratio of his estimate of the MPC out of coupons to his estimate of the MPC out of income is 2.7. This value is near the lower end of the range of most of the ratios of these estimates in the studies reviewed by Fraker.

effectiveness of a marginal dollar of food stamp benefits would be reduced as a consequence of cash-out by a factor of between 2-to-1 and 10-to-1.

B. FINDINGS FROM THIS STUDY

In this section, we first describe the linear model that we used to obtain regression estimates of the marginal effects of coupons, checks, and ordinary cash income on the money value of food used from home. We then discuss the regression estimates and the results of statistical tests of the differences among those estimates.

1. Model Specification

We based our estimates of the marginal effects of coupons, checks, and income on food used at home on a linear model that incorporates what we consider the principal desirable elements of the existing models reviewed by Fraker (1990). The model is as follows:

$$(1) \quad MV_i = X_i \beta + \alpha_1 CHKBEN_i + \alpha_2 COUPBEN_i + \alpha_3 INC_i + \alpha_4 AME_i + \epsilon_i$$

where:

- i = index for households ($i = 1, \dots, 2,289$)³
- MV = the money value of *purchased* food used at home (Version 1), or money value of *the sum of purchased and nonpurchased* food used at home (Version 2), equivalent nutrition unit (ENU)
- INC = ordinary cash income (exclusive of food stamp checks) per adult male equivalent (AME)⁴

³In this model, the term "household" refers to the food consumption unit (FCU), unless explicitly stated otherwise. The FCU consists of those individuals in the dwelling unit who are either covered by the sampled person's food stamp benefit or who share food and cooking facilities with the sampled person. Guests are included in the FCU in proportion to the number of meals that they eat from the household's food supply.

⁴In this model, ENU and AME are computed on the basis of the needs of household members and guests for food energy, as indicated by the 1989 recommended dietary allowances (National Research Council, 1989). See Chapter III, Section C.1, for additional discussion of these measures.

<i>COUPBEN</i>	= the food stamp coupon benefit amount per AME; zero for check recipient
<i>CHKBEN</i>	= the food stamp check benefit amount per AME; zero for coupon recipient
<i>AME</i>	= household size in AMEs
<i>X</i>	= a vector of control variables (primarily demographic variables) that are described in the next paragraph
ϵ	= a random disturbance term
β	= a vector of parameters to be estimated
α_1	= the MPC out of food stamp checks; a parameter to be estimated
α_2	= the MPC out of food stamp coupons; a parameter to be estimated
α_3	= the MPC out of ordinary income; a parameter to be estimated
α_4	= an economies-of-scale parameter to be estimated.

The *X* vector includes dummy variables that indicate the age, education, and race/ethnicity of the person in whose name the household receives its food stamp benefit, as well as other dummy variables that indicate the presence in the household of children, of persons aged 60 years or older, and of a female head.^{5,6} The other variables in the *X* vector are an intercept term, a dummy variable that indicates whether the household resides in an urban county, and the income of persons in the dwelling unit who are not members of the FCU. The latter variable is measured on a per-AME basis.⁷

⁵The model includes the first two of the following three mutually exclusive indicators of race and ethnicity: (1) Hispanic, (2) black (not Hispanic), and (3) white (not Hispanic) or other (not Hispanic).

⁶The female-head variable is a dummy variable that equals one if there is either a female head and no male head, or a female head and a male head. It equals zero if there is a male head only.

⁷We considered several variants of equation (1) during preliminary analysis of the data. These did not yield results that differed substantively from those obtained using exactly the model specified in equation (1). One of the variants expanded equation (1) to include a binary variable designating whether a household received its food stamp benefit in the form of a check or coupons. The coefficient on this variable was small and not statistically significant. The inclusion of this variable in the model did not alter the results of any of the tests of hypotheses that are described later in this appendix.

The dependent variable in the equation (1) model is scaled by a measure of household size in ENUs because that is the best available measure of food use relative to the needs of the household members and guests who are dependent on the household food supply. In principle, we would also like to use the ENU measure of household size on the right-hand side of the model. However, we do not do so, because we are concerned that the proportion of meals eaten by household members away from home, which is reflected in ENU, is endogenous to the model. That is, we are concerned that the proportion of meals eaten away from home and, hence, the ENU, may be a function of the household's income level and the form and amount of the food stamp benefit. Such endogeneity could result in biased estimates of the coefficients α_1 through α_4 in equation (1). To avoid such bias, we use the exogenous AME measure of household size on the right-hand side of the model. The AME measure adjusts household size for the age and gender composition of the FCU, but does not adjust for the proportion of meals that are eaten away from home or for meals served to guests.

Alabama imposes state, county, and municipal sales taxes on food purchased for home use. The state sales tax rate is 4 percent. The combined county and municipal tax rate varies; it is 3 percent for 7 of the 12 counties that participated in the pure cash-out demonstration and is 4 percent for the other 5 demonstration counties. Thus, the participants in our household survey faced a cumulative sales tax of 7 percent or 8 percent on their cash purchases of food. Federal law prohibits the charging of sales taxes on food purchases made with food stamp coupons. To offset the sales tax on cash purchases of food, Alabama's Department of Human Resources added 7 percent to the food stamp benefit amounts that were issued to recipients of food stamp checks.

Because cash purchases of food are subject to sales taxes, whereas those made with food stamp coupons are not, we would expect the impact of cash income, including food stamp checks, on the money value of food used at home to be smaller than that of food stamp coupons.⁸ Thus, the

⁸Because the money value of food used at home is computed on the basis of the quantities of the various types of food used and of the prices paid for those foods, it is a tax-free measure. On the other hand, a measure of expenditures for food might include sales taxes.

existence of the sales taxes could introduce spurious differences between estimates of the marginal effect of food stamp coupons on the money value of food used at home and estimates of the marginal effects of food stamp checks and ordinary cash income. To eliminate those spurious differences, we divided the check benefit amounts and all cash income amounts received by the households that participated in the Alabama cash-out survey by 1 plus the combined state, county, and local sales tax rate (that is, by 1.07 or 1.08). This division allows us to produce estimates of the marginal effects of food stamp checks and ordinary cash income on the money value of food used at home that are not distorted by the sales tax and, hence, that are fully comparable with our estimates of the marginal effects of food stamp coupons. The mean values and standard deviations of the explanatory variables used in the regression analysis, as given in Table E.2, reflect this adjustment for sales taxes.

As we indicated in the definition of the dependent variable, MV , we estimated two versions of this model. Version 1 explains the variation among households in their use of *purchased food* used at home, whereas Version 2 explains the variation in *the sum of purchased and nonpurchased food* used at home. The estimates of the marginal effects of income and food stamp benefits on the use of purchased food obtained on the basis of the Version 1 model may be compared appropriately with most existing estimates of the MPC out of income and out of food stamp benefits. On the other hand, the estimates obtained on the basis of the Version 2 model may be more appropriate for evaluating the effects of cash-out on the quality of the diets of recipient households. The latter model captures any negative effects that cash-out might have on the use of purchased food, as well as any potentially offsetting positive effects of cash-out on the use of nonpurchased food.

2. Estimates of the Model

We first examine estimates of the model in equation (1) when the dependent variable is the use of purchased food used at home. We then examine estimates when the dependent variable is the sum of purchased and nonpurchased food used at home. We devote more attention to the former

estimates, because they are more comparable to existing estimates of the effects of food stamp benefits and ordinary income on food consumption.

a. Results for Purchased Food

We present our estimates of the marginal propensity to consume purchased food (MPC_p) from the household food supply out of coupons, checks, and ordinary cash income in the first three rows of the first column of Table F.1. Those estimates are based exactly on the model described in equation (1). We present our estimates of the differences in the MPC_p out of coupons, checks, and income in the last three rows of the first column. The estimates are based on algebraically equivalent variants of the equation (1) model.⁹

We estimate that the MPC_p out of food stamp coupons is 0.307. The large t-statistic associated with this estimate (6.42) indicates that we can be highly confident that the true value of the MPC_p out of coupons is greater than zero.¹⁰ The estimate is in the middle of the range of existing estimates of this relationship, as reviewed by Fraker (1990). It tells us that, for each additional dollar of food stamp benefits in the form of coupons, the use of purchased food is expected to increase by 31 cents. Our estimate of the MPC_p out of food stamp checks is 0.311, which is almost identical to our estimate of the MPC_p out of food stamp coupons. The t-statistic associated with this estimate is also large, giving us a high degree of confidence that the true MPC_p out of food stamp checks is also positive.

Our estimates indicate that ordinary cash income also increases the use of purchased food. We estimate that an additional dollar of income causes a food stamp household to increase its use of

⁹We estimated three algebraically equivalent variants of equation (1). In the first of these, we retained *INC* and *CHKBEN*, dropped *COUPBEN*, and added *COUPBEN* + *CHKBEN*. The coefficient on *CHKBEN* is the coupon-check difference in the MPC_p . In the second variant, we retained *COUPBEN* and *CHKBEN*, dropped *INC*, and added *INC* + *COUPBEN*. The coefficient on *COUPBEN* is the coupon-income difference in the MPC_p . In the third variant, we retained *COUPBEN* and *CHKBEN*, dropped *INC*, and added *INC* + *CHKBEN*. The coefficient on *CHKBEN* is the check-income difference in the MPC_p .

¹⁰We also can be highly confident that the true value of the MPC_p is less than one.

TABLE F.1

ESTIMATES OF THE EFFECTS OF COUPONS, CHECKS, AND INCOME
ON THE MONEY VALUE OF FOOD USED AT HOME,
BASED ON A LINEAR MODEL

	Estimated Marginal Effects on the Money Value of Food Used at Home	
	Purchased Food	Purchased and Nonpurchased Food
Coupons	0.307 ^{††} (6.42)	0.329 ^{††} (6.58)
Checks	0.311 ^{††} (6.56)	0.341 ^{††} (6.86)
Ordinary Income	0.073 ^{††} (6.21)	0.070 ^{††} (5.67)
Difference: Coupons - Checks	-0.004 (0.14)	-0.012 (0.36)
Difference: Coupons - Income	0.234 ^{††} (5.29)	0.259 ^{††} (5.67)
Difference: Checks - Income	0.239 ^{††} (5.47)	0.271 ^{††} (5.95)

SOURCE: Evaluation of the Alabama Food Stamp Cash-Out Demonstration, household survey, ordinary least squares regressions.

NOTE: These estimates are based on data for 1,080 coupon households and 1,209 check households.

t-Statistics are shown in parentheses.

The regression estimates presented in this table were obtained from several algebraically equivalent variants of the linear model of household food use given in equation (1). Full regression results for equation (1) are provided in Tables E.9 - E.12.

One-tailed statistical tests were performed on all estimated effects shown in this table.

^{††}Statistically significant at the 95 percent confidence level, one-tailed test.

purchased food at home by about seven cents. Given the large t-statistic associated with this estimate, we are highly confident that the true MPC_p out of income is positive.

On the basis of the estimates presented in Table F.1, we are able to test six different hypotheses about the marginal effects of coupons, checks, and income on the use of purchased food at home. Table F.2 presents the formal specifications and empirical outcomes of those tests. Here, we briefly recapitulate in somewhat less formal terminology the conclusions that can be drawn from the tests:

- Test #1:** Coupons increase the use of purchased food.
- Test #2:** Checks increase the use of purchased food.
- Test #3:** Ordinary cash income increases the use of purchased food.
- Test #4:** The effect of coupons on the use of purchased food is virtually the same as that of checks.
- Test #5:** The effect of coupons on the use of purchased food is greater than that of ordinary cash income.
- Test #6:** The effect of checks on the use of purchased food is greater than that of ordinary cash income.

With respect to the fundamental objective of this evaluation--to determine whether cash-out has a negative effect on food consumption--Test #4 is the most important test. The results of Test #4 tell us that, in Alabama, cash-out entails no loss in the marginal effectiveness with which food stamp benefits increase the use of purchased food at home. Indeed, our estimates of the MPC_p out of food stamp coupons and out of food stamp checks are virtually identical, indicating that the two benefit forms are equally effective in increasing the use of purchased food.

In the context of the existing research on the effects of check benefits and of coupon benefits on household food consumption, Test #6 is also of considerable interest. As noted previously, most studies on this topic necessarily have been based on data sets that provide no information on actual recipients of food stamp checks. Therefore, researchers have had to infer what the effects of checks would be on the basis of estimates of the effects of ordinary cash income on food use. With

TABLE F.2

RESULTS OF TESTS OF HYPOTHESES ON THE EFFECTS OF COUPONS, CHECKS,
AND INCOME ON THE MONEY VALUE OF FOOD USED AT HOME

	Test Results for the Money Value of Food Used at Home	
	Purchased Food	Purchased and Nonpurchased Food
Test #1		
Null hypothesis: MPC coupons = 0	Reject null ^{††}	Reject null ^{††}
Alt. hypothesis: MPC coupons > 0		
Test #2		
Null hypothesis: MPC checks = 0	Reject null ^{††}	Reject null ^{††}
Alt. hypothesis: MPC checks > 0		
Test #3		
Null hypothesis: MPC income = 0	Reject null ^{††}	Reject null ^{††}
Alt. hypothesis: MPC income > 0		
Test #4		
Null hypothesis: MPC coupons = MPC checks	Do not reject null	Do not reject null
Alt. hypothesis: MPC coupons > MPC checks		
Test #5		
Null hypothesis: MPC coupons = MPC income	Reject null ^{††}	Reject null ^{††}
Alt. hypothesis: MPC coupons > MPC income		
Test #6		
Null hypothesis: MPC checks = MPC income	Reject null ^{††}	Reject null ^{††}
Alt. hypothesis: MPC checks > MPR income		

SOURCE: Evaluation of the Alabama Food Stamp Cash-Out Demonstration, household survey, ordinary least squares regressions.

NOTE: Test results are based on regression estimates provided in Table F.1

MPC = marginal propensity to consume.

^{††}Null hypothesis rejected at the 95 percent confidence level.

considerable uncertainty, the researchers have assumed that check benefits would have approximately the same effect on food use as would ordinary cash income. The results of Test #6 indicate that this assumption is incorrect for purchased food. Our estimates indicate that the MPC_p out of checks is greater than the MPC_p out of ordinary cash income.

b. Results for the Sum of Purchased and Nonpurchased Food

The money value of all food used at home (purchased food plus nonpurchased food) per ENU is a better indicator of a household's nutritional well-being than is the more restricted measure based on purchased food only. In this section, we examine our estimates of the marginal effect of coupons, checks, and income on this broader measure of food use. The results are quite similar to those just discussed.

As shown in Table F.1, the regression estimates of the marginal propensity to consume the sum of purchased and nonpurchased food (MPC_{p+np}) out of coupons and checks, respectively, are .329 and .341. These estimates are slightly larger than the corresponding estimates of the MPC_p and are different from zero at very high levels of statistical significance. The small check-coupon difference in estimates of the MPC_{p+np} is not statistically significant, indicating that coupon and check benefits are equally effective in increasing the use of purchased and nonpurchased food. The estimated MPC_{p+np} out of ordinary income, .070, is significantly larger than zero but is significantly smaller than the estimates of the MPC_{p+np} out of food stamp coupons and checks. Table F.2 shows that the results of all six tests of hypotheses regarding the MPC out of coupons, checks, and ordinary income are qualitatively the same when based on the broader measure of food use as when based on the narrower measure.

C. DISCUSSION OF MPC ESTIMATES AND DIFFERENCE-IN-MEANS ESTIMATES

The difference-in-means estimates presented in Chapter IV showed that food stamp cash-out in Alabama had no effect on either the money value of purchased food used at home or on the money

value of the sum of purchased and nonpurchased food. The regression estimates of equation (1) that we have just reviewed are quite consistent with those findings. The regression estimates indicate that cash-out had no effect on the marginal effectiveness with which food stamp benefits increase the money value of food used at home, regardless of whether that food was purchased food only or was a combination of purchased and nonpurchased food. The high degree of consistency between the difference-in-means estimates and the regression estimates of the effects of cash-out strongly indicate that the issuance of food stamp benefits in the form of checks had no effect on the use of food at home by food stamp households in Alabama.

APPENDIX G

EFFECTS OF CASH-OUT ON HOUSEHOLDS IN DIFFERENT RANGES OF THE DISTRIBUTIONS OF THE OUTCOME VARIABLES

This appendix presents supplemental information on the effects of cash-out in Alabama on key outcome measures derived from the detailed food-use data that were collected by the household survey. This information can be used to determine whether the effects of cash-out were uniformly distributed across all households, or whether they were disproportionately concentrated among households in certain ranges of the distributions of the outcome measures.

Tables G.1 through G.3 present the median values of the money value of food used at home, the availability of food energy and protein, and the availability of seven micronutrients. The values shown in these tables are the median value counterparts to the mean values in Tables IV.1, IV.6, and IV.7. Tables G.1 through G.3 can be used to determine whether the generally negligible check-coupon differences in the mean values that are described in Chapter IV mask larger negative effects of cash-out that were disproportionately concentrated among households in the lower halves of the distributions of these variables.

The tables provide no evidence that cash-out in Alabama had disproportionately large negative effects on households in the lower halves of the distributions of the various food-use outcome measures. Indeed, the median values of most of those measures are 1 to 4 percent larger for check recipients than for coupon recipients. Although we have not conducted formal statistical tests on the differences in median values, they are sufficiently small that they are unlikely to be significant.

Figure G.1 presents cumulative distributions of the money value of food used at home per equivalent nutrition unit (ENU) for check households and for coupon households. Figures G.2 through G.4 present, respectively, cumulative distributions per ENU, for check households and for coupon households, of the availability of food energy, of calcium, and of iron as percentages of the recommended dietary allowances.¹ The figures show that the effects of cash-out were generally quite

¹We chose to analyze the effects of cash-out on the cumulative distributions of iron and calcium because these were the only micronutrients among the seven considered in this evaluation that the Expert Panel on Nutrition Monitoring has identified as presenting current public health issues (Life Sciences Research Office, 1989, page 46).

small throughout the entire range of values of the selected measures of food use and nutrient availability.

TABLE G.1
MONEY VALUE OF FOOD USED AT HOME
(In Dollars)

Measure of Weekly Food Use	Median Value		Difference in Medians	
	Check	Coupon	Absolute	Percentage
Money Value of Food Used at Home				
Purchased food	48.55	48.03	0.52	1.09
Nonpurchased food	0.62	0.75	-0.13	-17.33
All food used at home	53.54	51.98	1.56	3.01
Money Value of Food Used at Home per ENU				
Purchased food	30.07	29.55	0.52	1.79
Nonpurchased food	0.38	0.44	-0.06	-14.40
All food used at home	33.15	32.45	0.70	2.16
Money Value of Food Used at Home per AME				
Purchased food	26.20	25.40	0.80	3.13
Nonpurchased food	0.35	0.38	-0.03	-6.89
All food used at home	28.54	27.81	0.73	2.63
Sample Size	1,209	1,080		

SOURCE: Evaluation of the Alabama Food Stamp Cash-Out Demonstration, household survey.

ENU = equivalent nutrition unit; AME = adult male equivalent.

TABLE G.2
AVAILABILITY OF FOOD ENERGY AND PROTEIN

Nutrient	Median Value		Difference in Medians	
	Check	Coupon	Absolute	Percentage
Food Energy (percent of RDA)	147.25	144.23	3.02	2.09
Protein (percent of RDA)	231.01	232.71	-1.70	-0.73
Percent of Food Energy from:				
Protein	13.73	13.81	-0.08	-0.51
Fat	42.47	42.89	-0.42	-0.97
Carbohydrate	43.43	42.87	0.56	1.29
Sample Size	1,209	1,080		

SOURCE: Evaluation of the Alabama Food Stamp Cash-Out Demonstration, household survey.

NOTE: Nutrient availability from food used at home is given per equivalent nutrition unit, which is defined as the number of equivalent males eating all of their weekly meals from the household food supply.

RDA = recommended dietary allowance.

TABLE G.3
NUTRIENT AVAILABILITY PER ENU
(Percentage of RDA)

	Median Value		Difference in Medians	
	Check	Coupon	Absolute	Percentage
Vitamin A	161.78	159.95	1.83	1.14
Vitamin C	209.47	210.72	-1.25	-0.60
Vitamin B ₆	142.55	138.07	4.48	3.24
Folate	198.34	189.42	8.92	4.71
Calcium	104.92	100.48	4.44	4.42
Iron	161.35	155.27	6.08	3.91
Zinc	113.82	114.23	-0.41	-0.36
Sample Size	1,209	1,080		

SOURCE: Evaluation of the Alabama Food Stamp Cash-Out Demonstration, household survey.

NOTE: Nutrient availability from food used at home is given per equivalent nutrition unit (ENU), which is defined as the number of equivalent males eating all of their weekly meals from the household food supply.

RDA = recommended dietary allowance.

FIGURE G.1
CUMULATIVE DISTRIBUTION: MONEY VALUE OF FOOD USED AT HOME

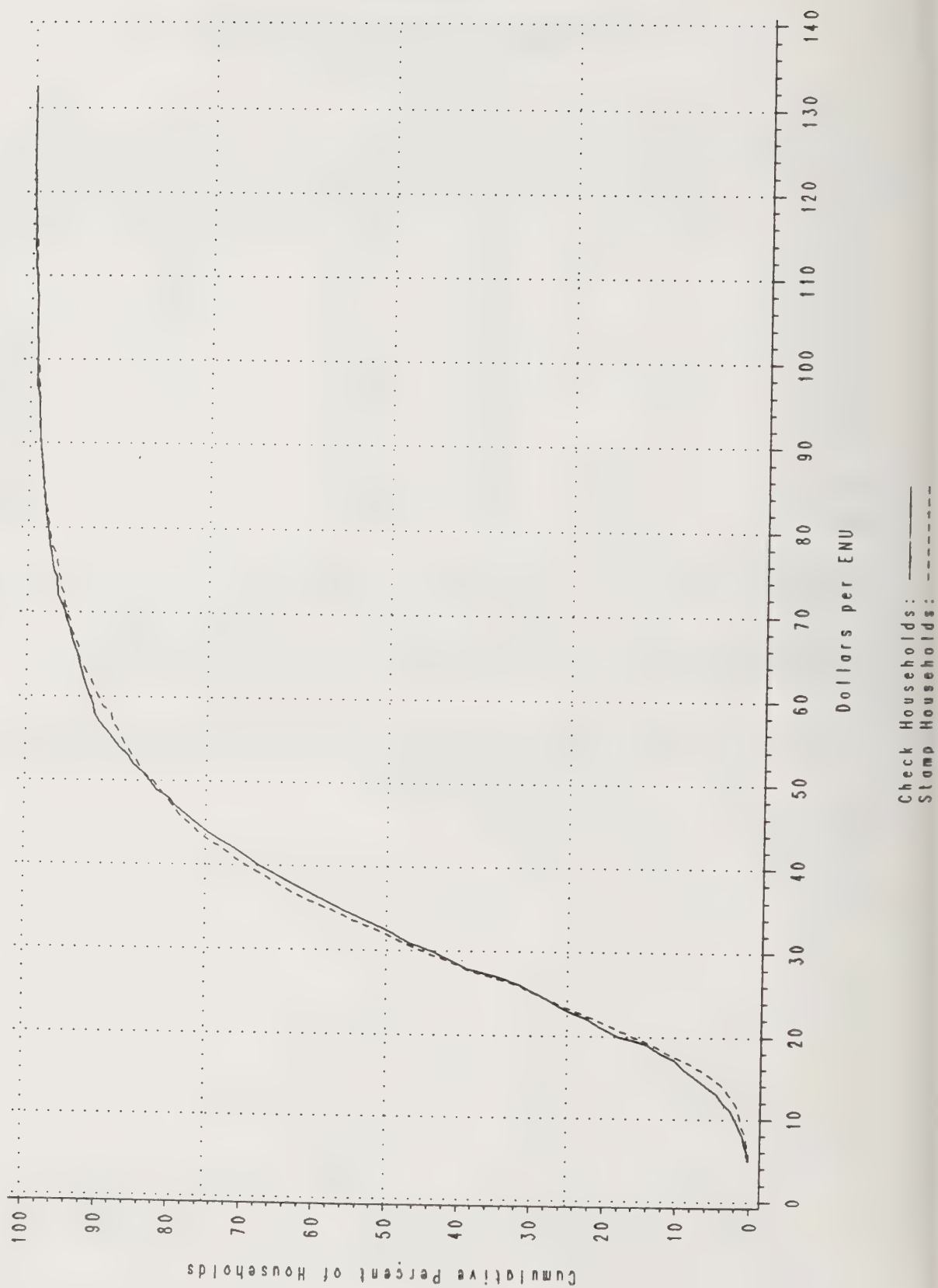


FIGURE G.2
CUMULATIVE DISTRIBUTION: FOOD ENERGY

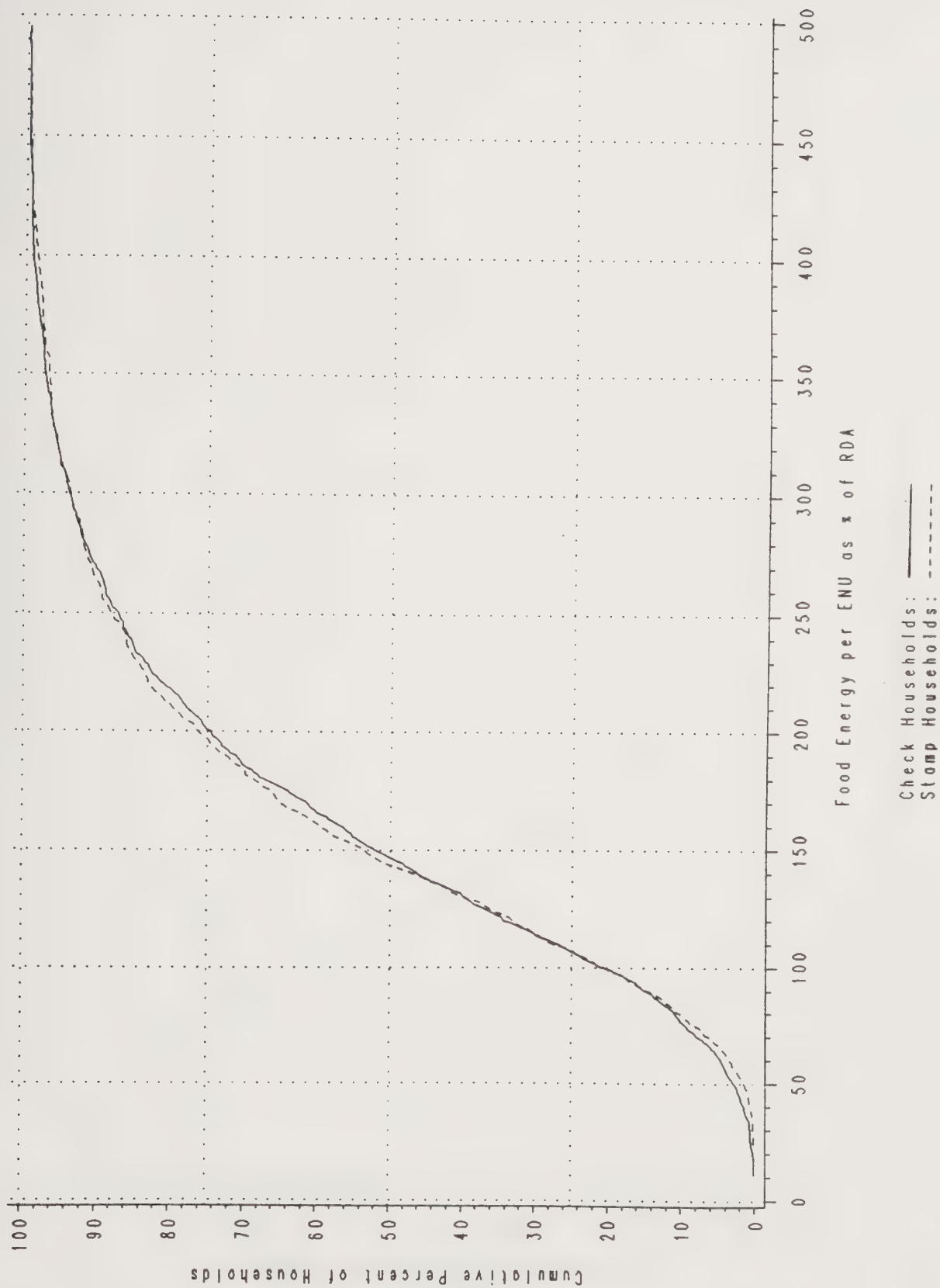


FIGURE G3
CUMULATIVE DISTRIBUTION: CALCIUM

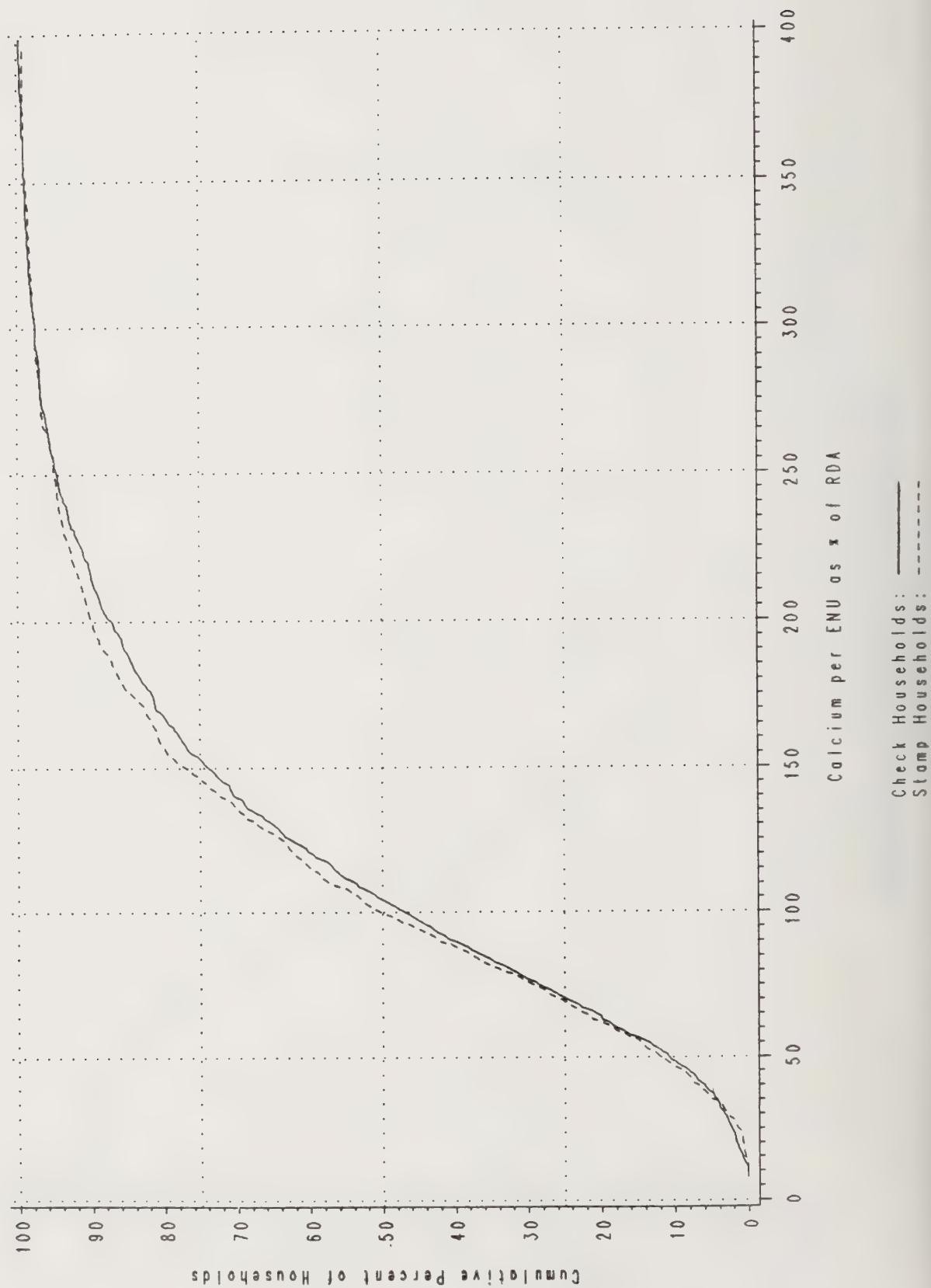
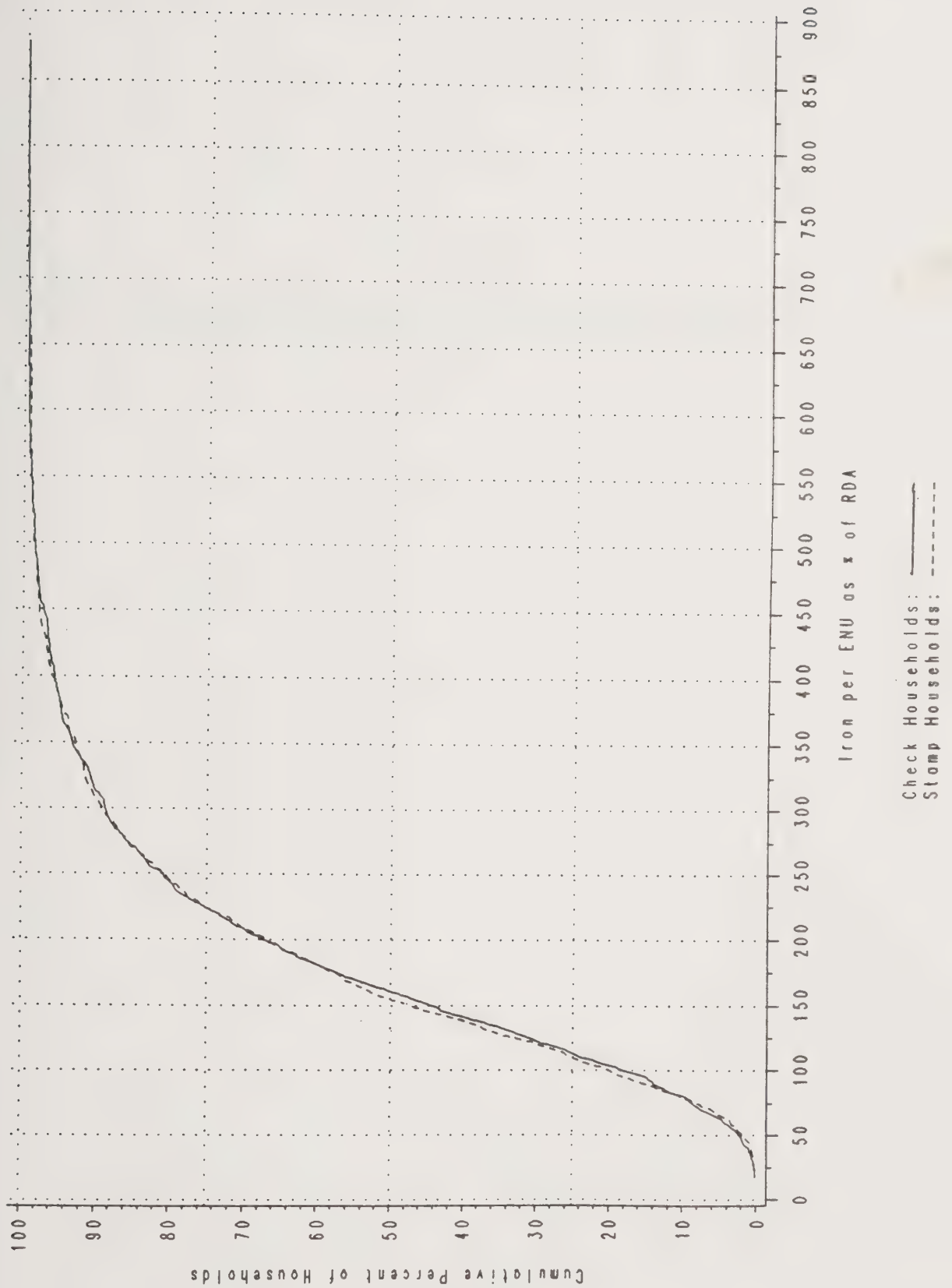


FIGURE G.4
CUMULATIVE DISTRIBUTION: IRON



APPENDIX H

EFFECTS OF CASH-OUT ON FOOD AND NONFOOD EXPENDITURES, BASED ON DATA FROM THE SCREENER AND THE HOUSEHOLD SURVEY

As noted in the body of the report, two different measures of household expenditures for food used at home are available in the survey data set. One measure is based on information from the very detailed food-use section of the main questionnaire, in which we used detailed probes to obtain information on all food items used by the household in the seven days preceding the survey. We obtained the measure of monthly expenditures for food used at home based on these data by summing the prices times quantities used over all purchased food items reported by the household and by multiplying that sum by 4.3 (the number of weeks in a month).

The screener instrument provides a completely independent measure of monthly expenditures for food used at home. In the screener, we asked households to estimate the amount of money that they had spent during the previous month in each of four types of food stores: (1) supermarkets, (2) neighborhood grocery stores, (3) convenience stores, and (4) specialty stores. We also asked the households how much of that money had been devoted to nonfood expenditures, thus enabling us to derive a monthly estimate of expenditures for food used at home.

The two sources of survey data on monthly expenditures for food used at home are not consistent with each other. We were most concerned that the average monthly expenditures for food used at home based on the data from the screener are lower than those based on the data from the main questionnaire. According to the main questionnaire, the estimated average monthly expenditure for food used at home per household is \$237, whereas the estimate from the screener data is \$189, approximately 20 percent lower.¹

To assess the divergent expenditure estimates from the survey, we compared them with two alternative sources of information about food expenditures of low-income households. The two sources were: (1) detailed food-use data collected by the 1979-1980 low-income supplement to the

¹The correlation coefficient between the two measures of expenditures is .6, implying that the two are very significantly correlated with each other, but that each has considerable independent variation. However, because the reference periods covered by the two measures are different, there is no reason to expect that these variables would be correlated fully, even if measurement error were not an issue. Thus, in our judgement, the difference in the means between the two measures is of greater concern than is the lack of a greater degree of correlation.

Nationwide Food Consumption Survey (NFCS), and (2) detailed consumer-diary data compiled as part of the 1988-1989 Consumer Expenditure Survey that was conducted by the U.S. Department of Labor, Bureau of Labor Statistics (BLS). When making the comparisons, we used the "Food at Home" component of the Consumer Price Index (CPI) to adjust all dollar values related to food to reflect 1990 prices. We discuss the results in the following paragraphs.

As shown in Table H.1, after adjusting for price inflation, the estimate from the 1979-1980 Supplement to the NFCS of the value of food used at home by low-income households is \$310 per month. The comparable estimate from the Alabama main questionnaire is \$258. (No Alabama screener data are available for this measure.) Thus, the estimates obtained in the main questionnaire are not "high" relative to similar data obtained during the 1979-1980 NFCS.²

The BLS did not collect data on nonpurchased food. Therefore, to develop comparisons on the basis of the BLS data, it is necessary to narrow the focus to include only expenditures for food used at home.³ These data are presented in the second line of Table H.1. The BLS expenditure estimate (\$182) is lower than both the main survey and the screener estimates (\$237 and \$189, respectively). However, the BLS figure is closer to the screener.

Considering all of the information presented in Table H.1 together, the available evidence with regard to the relative accuracy of the main instrument data and the screener data is mixed. The

²We also examined the data from the 1977-1978 NFCS and observed patterns similar to those reported in the text with regard to the 1979-1980 data. Both data sets were also examined on a "per-household-member" basis, and, again, the basic results were not substantially affected.

³The BLS estimate was computed on the basis of detailed expenditures estimates that were broken down by the number of persons in the household and by income group. We computed a weighted average of the detailed BLS expenditures for each of these groupings, with the weights reflecting the proportions of households in the size and income categories among households in the Alabama sample. See footnote a of Table H.1 for details on the computation of the BLS estimate. We inflated the BLS data by a factor of 1.087 to account for changes in the relevant component of the CPI between January 1989 and June 1990.

TABLE H.1

FOOD-EXPENDITURE ESTIMATES FROM ALTERNATIVE SOURCES
(In Dollars)

	1979-1980 Nationwide Food Consumption Survey ^a	1988-1989 Consumer Expenditure Survey ^b	Alabama Main Questionnaire ^c	Alabama Screener
Value of Food Used at Home per Household per Month	310	NA	257	NA
Expenditures for Food Used at Home per Month	NA	182	237	189

^aBased on U.S. Department of Agriculture, Human Nutrition Information Service, July 1982. The estimate is from Table 2, for Food Stamp Program participants in the South. The estimate was inflated by a factor of 1.555 to account for changes in the Consumer Price Index for Food at Home between the time of the data collection and 1990. The weekly estimate in the table was multiplied by 4.3 to convert to a monthly basis.

^bBased on U.S., BLS, 1991. The BLS estimate was computed on the basis of detailed expenditures estimates broken down by number of persons in the household, which appear in Tables 33-39 of U.S., BLS, 1991. These tables give average expenditures for food at home, by size of household by income group. A weighted average of the detailed BLS expenditures for each of these groupings was then computed, with the weights reflecting the proportions of households in the size and income categories among households in the Alabama sample. (The BLS estimates were computed by summing "food at home" plus 54 percent of "alcoholic beverages," on the basis of unpublished estimates provided to us by the BLS, that 54 percent of alcoholic beverage expenditures are for purchases consumed at home.) We also adjusted the BLS estimates downward by a factor of 6 percent to account for the fact that, as shown in Table 8 of U.S., BLS, 1991, average expenditures in the BLS data are 6 percent lower in the South than in the nation as a whole. We inflated the BLS data by a factor of 1.087 to account for changes in the relevant component of the Consumer Price Index between January, 1989 and June, 1990.

^cBased on the average of check and coupon households.

NA = not available.

NFCS-based estimates are more consistent with the data from the main survey instrument, whereas the BLS-based estimates are more consistent with the data from the screener.⁴

To further assess the likely accuracy of the data from the main questionnaire relative to the data from the screener, we also considered the nature of the questioning sequences in the two instruments. The main questionnaire used a much more detailed questioning sequence and a shorter reference period than did the screener. In addition, in the main questionnaire, unlike the screener, respondents were asked in advance to keep records. Thus, the recall aids used to administer the main questionnaire were much more extensive than those used in the screener. Given these differences, it does not seem surprising that more expenditures would be reported in the main questionnaire data, and it appears likely that the main questionnaire data are the more accurate.

Overall, considering the comparisons of estimates based on the data sources and the nature of the survey questions, we believe that the data from the main questionnaire are likely the more accurate. Therefore, the results presented in the main body of the report are based on the data from the main questionnaire. However, to provide complete information about the research findings, we conducted a second set of analyses of the impact of cash-out on food and nonfood expenditures, based on the screener data. Chapter V presented the findings from the *monthly money value of*

⁴In addition to obtaining diary information on food expenditures, the BLS Consumer Expenditure Survey data collection process also obtains a second measure of food expenditures, one based on summary survey questions similar to those in our screener. Similarly, the NFCS collects data by using summary questions, as well as by collecting the detailed food-use data on which their main expenditures estimates are based. However, the researchers carrying out these two data collection efforts appear to believe that data based on detailed data collection (either the diary, in the case of the BLS, or the food-use grids, in the case of the NFCS) are likely to be more accurate than data from the summary questions, because the available published estimates from both the BLS and the NFCS are based on the detailed data. Although *published* data from these other data collection efforts are not available, we have used available unpublished information to conduct some analyses of the screener-type data. The results show no clear pattern with regard to whether screener-type questions or more detailed questions lead to higher expenditure estimates. In unpublished tabulations of a sample of households from the 1979-1980 low-income supplement of the NFCS, MPR found that weekly expenditures based on the food-grid data are approximately 14 percent higher than those based on the summary questions. However, the BLS estimates based on a summary sequence of questions lead to estimates that are approximately 28 percent *higher* than those from detailed diary data. (Based on unpublished data supplied by the BLS.)

purchased food used at home, which is based on information obtained from the main questionnaire. Section A of this appendix presents the findings based on the second measure, the *monthly expenditures for food from stores*, which is based on data from the screener.

The estimates of the impacts of the demonstration on food expenditures *per household* differ between the two data sets. Contrary to expectations, the measure of expenditures for food used at home per household based on the main questionnaire shows that check households spent \$2.66 more than coupon households for food used at home. On the other hand, evidence from the screener suggests that check households spent nearly \$5.00 less per month for food used at home. However, in neither case is the check-coupon household difference statistically significant.

The estimates of the impacts of the demonstration on food expenditures *per adult male equivalent (AME)* do not differ substantially between the two data sets. Evidence based on data from the main questionnaire suggests that cash-out reduced monthly expenditures for food used at home per AME by only \$0.34. This estimated decrease in expenditures is not statistically significant. Evidence from the screener suggests that check households spent \$1.96 less per month than coupon households per AME for food used at home. This difference is also not statistically significant.

For reasons summarized in the preceding paragraphs, we believe that the data from the main instrument are probably the more accurate. However, to provide a full overview of the survey findings in the report, we include results that are based on both measures of food expenditures.

The material that follows is organized into two sections. Section A uses data from the screener and the household survey to describe the findings on the impact of cash-out on expenditures for food used at home, on total expenditures for food, and on food and nonfood expenditure shares. Section B uses data from the screener to present findings on the impact of cash-out on expenditure shares for food used at home, by type of store.

A. IMPACTS ON FOOD AND NONFOOD EXPENDITURES

This section uses data from the screener and the main instrument to discuss the impact of cash-out on expenditures for food used at home, on total expenditures for food, and on broad categories of nonfood expenditures.⁵

1. Expenditures for Food Used At Home

Data from the screener imply that check households spent about the same amount as coupon households for food used at home. Table H.2 shows that check households reported spending an average of \$4.84 less per month for food used at home than did coupon households (\$186.83 versus \$191.67); however, this difference is not statistically significant at the 90 percent confidence level, with a one-tailed test. Controlling for household size and composition, check households reported spending \$1.96 less per month for food used at home per AME than did coupon households (\$96.01 versus \$97.97); however, this difference is also not statistically significant, with a one-tailed test.

2. Total Expenditures for Food

Total expenditures for food, which is the sum of expenditures for food purchased from stores, as obtained from the screener, and of expenditures for food used away from home, as obtained from the main questionnaire, were also about the same for check households and coupon households.

⁵To make valid check-coupon household comparisons for food expenditures based on data from the screener in Alabama, we must adjust food expenditures to take into account the fact that coupon households are not charged a sales tax on food expenditures made with coupons, whereas check households are charged a sales tax on food expenditures made with checks (cash). If we do not make this adjustment, the check-coupon household comparisons will be biased upward, because expenditures for food used at home will be systematically higher for check households than for coupon households. This issue did not arise in the evaluation of cash-out in San Diego, because San Diego County does not tax food expenditures.

To make the adjustment, we subtracted from each check household's total expenditures for food used at home, as reported in the screener, an amount equal to the household's food stamp benefit amount multiplied by the county-specific cumulative sales tax rate for the county in which the household resided. The adjustment assures that we can compare the check-coupon household difference in food expenditures based on the screener data with the difference based on food-expenditure data from the main questionnaire, as the latter is based on the prices of purchased food without the sales tax.

TABLE H.2

**MONTHLY EXPENDITURES FOR FOOD USED AT HOME
AND FOOD USED AWAY FROM HOME**

Measure of Food Expenditure	Mean Value		Difference in Means		
	Check	Coupon	Absolute	Percentage	t-Statistic
Food Used at Home					
Expenditure for food used at home (per household)	\$186.83	\$191.67	-\$4.84	-2.53	0.96
Expenditure for food used at home (per AME)	\$96.01	\$97.97	-\$1.96	-2.00	0.90
Percent of total food expenditures for food used at home	93.65	93.55	0.10	0.10	0.16
Percent of meals eaten at home	88.42	87.26	1.16	1.33	2.00
Food Used Away from Home					
Expenditure for food used away from home (per household)	\$14.13	\$15.07	-\$0.94	-6.24	0.63
Expenditure for food used away from home (per AME)	\$7.77	\$8.77	-\$1.00	-12.39	0.92
Percent of total food expenditures for food used away from home	6.35	6.45	-0.10	-1.40	0.16
Percent of meals eaten away from home	11.58	12.74	-1.16	-9.11	2.00
--Paid for	2.95	3.16	-0.21	-6.60	0.75
--Free	8.62	9.57	-0.95	-9.92	1.84
Total Expenditures for Food					
Sum of the expenditures for food used at home and expenditures for food used away from home (per household)	\$199.09	\$205.35	-\$6.26	-3.05	1.17
Sum of the expenditures for food used at home and expenditures for food used away from home (per AME)	\$103.91	\$106.94	-\$3.03	-2.83	1.24
Sample Size	1,209	1,080			

SOURCE: Evaluation of the Alabama Food Stamp Cash-Out Demonstration, household survey.

NOTE: One-tailed statistical tests for (1) lower use of food at home and total expenditures for food by check recipients, and (2) greater use of food away from home by check recipients were performed on the check-coupon differences shown in this table.

None of the differences shown in this table is statistically significant at the 90 percent confidence level or higher.

Data are from the main questionnaire and screener.

AME = adult male equivalent.

Check households reported spending \$199.09 per month for food, whereas coupon households reported \$205.35 (Table H.2). This difference of \$6.26 per month is not statistically significant, with a one-tailed test. Adjusting for household size and composition, check households reported spending \$3.03 less per month per AME for food (\$103.91 versus \$106.94), but the difference is not statistically significant (Table H.2).

3. Food and Nonfood Expenditure Shares

On the basis of the amount spent at stores obtained from the screener as the measure of expenditures for food used at home, both check and coupon households allocated about 39 percent of their monthly expenditures to food (Table H.3). Note that, when the measure based on the screener data is used, rather than the money value of purchased food used at home that is based on the main questionnaire, the expenditure shares for all food for check and coupon households were each about 4 percentage points smaller (39 percent versus 43 percent). This difference reflects the lower estimate of expenditures for food used at home from the screener.

In only one of the nine nonfood consumption categories is the mean expenditure share of check households significantly *larger* than that of coupon households at the 90 percent confidence level.⁶ We estimate that check households allocated about 1 percentage point more of their total expenditures to utilities than did coupon households.

B. EXPENDITURE SHARES FOR FOOD, BY TYPE OF STORE

In the screener, respondents were asked to report the total amount that the household spent at each type of store (supermarkets, neighborhood grocers, convenience stores, and specialty stores) and to report the amount that was spent for nonfood items. Thus, we obtained the amount that

⁶We are counting the two components of "shelter" ("housing" and "utilities") as separate consumption categories.

TABLE H.3

EXPENDITURE SHARES, BY BROAD CONSUMPTION CATEGORY
(In Percentages)

Consumption Category	Share of Total Expenditures		Difference in Means		
	Check	Coupon	Absolute	Percentage	t-Statistic
All Food	38.28	38.94	-0.66	-1.69	0.75
Food at home	36.08	36.59	-0.51	-1.38	0.58
Food away from home	2.19	2.35	-0.16	-6.48	0.67
All Shelter	36.98	35.42	1.56	4.39	1.86 [†]
Housing	15.48	14.98	0.50	3.34	0.79
Utilities	21.50	20.45	1.05	5.16	1.71 [†]
Medical	5.15	4.85	0.30	6.20	0.70
Transportation	9.02	9.39	-0.37	-3.97	0.77
Clothing	5.71	6.00	-0.29	-4.84	0.74
Education	1.12	1.33	-0.21	-15.77	1.58
Dependent Care	0.67	0.83	-0.16	-19.37	1.10
Recreation	1.57	1.70	-0.13	-7.83	0.84
Personal Items	1.52	1.55	-0.03	-1.90	0.25
Total	100.00	100.00			
Sample Size	1,209	1,080			

SOURCE: Evaluation of the Alabama Food Stamp Cash-Out Demonstration, household survey.

NOTE: One-tailed statistical tests for lower spending on "all food" and "food at home" and for greater spending on other consumption categories among check recipients were performed on the check-coupon differences shown in this table.

Data are from the main questionnaire and screener.

[†]Statistically significant at the 90 percent confidence level, one-tailed test.

households spent for food at each type of store by subtracting the amount spent for nonfood items from the total amount spent.

Table H.4 shows the effect of cash-out on food expenditure shares, by type of store. An expenditure share is the proportion of all reported expenditures for food used at home that was spent at a particular type of store. For every dollar spent for food, both check and coupon households spent roughly 88 cents at supermarkets, roughly 7 cents at neighborhood grocery stores, roughly 3 cents at specialty stores, and roughly 2 cents at convenience stores.

Expenditure for food at supermarkets as a percent of total food expenditures was 0.74 percentage points larger for check households than for coupon households; however, this difference is not statistically significant at the 90 percent confidence level, with a two-tailed test. For each of the other types of store, check and coupon households also did not differ significantly in the expenditure share for food used at home.

TABLE H.4

EXPENDITURE SHARE FOR FOOD USED AT HOME, BY TYPE OF STORE
(Percentage of Food Expenditures)

Type of Store	Mean Value		Difference in Means		
	Check	Coupon	Absolute	Percentage	t-Statistic
Supermarket	88.11	87.37	0.74	0.84	0.97
Neighborhood grocery store	6.89	7.03	-0.14	-1.99	0.22
Convenience store	1.78	1.97	-0.19	-9.67	0.74
Specialty store	3.22	3.63	-0.41	-11.02	1.05
Total	100.00	100.00			
Sample Size	1,209	1,080			

SOURCE: Evaluation of the Alabama Food Stamp Cash-Out Demonstration, household survey (screener).

NOTE: Two-tailed statistical tests were performed on all check-coupon differences shown in this table.

APPENDIX I

STANDARD ERRORS OF ESTIMATES FOR KEY OUTCOME VARIABLES

The following tables, which correspond to Tables IV.1, IV.6, IV.7, and IV.8 in the body of the report, present standard errors of our estimates for key outcome variables in the analysis.

TABLE I.1

STANDARD ERRORS OF ESTIMATES FOR KEY OUTCOME VARIABLES
IN THE ANALYSIS OF THE MONEY VALUE OF FOOD USED AT HOME

	Standard Error of Mean		
	Check	Coupon	Check-Coupon Difference
Money Value of Food Used at Home			
Purchased food	1.01	1.03	1.44
Nonpurchased food	0.27	0.29	0.40
All food used at home	1.07	1.11	1.54
Money Value of Food Used at Home per ENU			
Purchased food	0.51	0.54	0.74
Nonpurchased food	0.17	0.17	0.24
All food used at home	0.53	0.56	0.77
Money Value of Food Used at Home per AME			
Purchased food	0.45	0.49	0.67
Nonpurchased food	0.17	0.14	0.22
All food used at home	0.49	0.52	0.71
Sample Size	1,209	1,080	

SOURCE: Evaluation of the Alabama Food Stamp Cash-Out Demonstration, household survey.

NOTE: This table presents standard errors of the estimates shown in Table IV.1.

ENU = equivalent nutrition unit; AME = adult male equivalent.

TABLE I.2

STANDARD ERRORS OF ESTIMATES FOR KEY OUTCOME VARIABLES
IN THE ANALYSIS OF THE AVAILABILITY OF
FOOD ENERGY AND PROTEIN

Nutrient	Standard Error of Mean		
	Check	Coupon	Check-Coupon Difference
Food Energy (percent of RDA)	2.26	2.39	3.29
Percent for Which Food Energy Equals or Exceeds RDA	1.16	1.22	1.68
Protein (percent of RDA)	3.76	3.98	5.47
Percent for Which Protein Equals or Exceeds RDA	0.62	0.60	0.86
Percent of Food Energy from:			
Protein	0.10	0.10	0.14
Fat	0.24	0.26	0.36
Carbohydrate	0.26	0.29	0.39
Sample Size	1,209	1,080	

SOURCE: Evaluation of the Alabama Food Stamp Cash-Out Demonstration, household survey.

NOTE: This table presents standard errors of the estimates shown in Table IV.6.

RDA = recommended dietary allowance.

TABLE I.3

STANDARD ERRORS OF ESTIMATES FOR KEY OUTCOME VARIABLES
IN THE ANALYSIS OF NUTRIENT AVAILABILITY PER ENU

Nutrient	Standard Error of Mean		
	Check	Coupon	Check-Coupon Difference
Vitamin A	6.02	7.10	9.31
Vitamin C	5.19	6.02	7.95
Vitamin B ₆	2.35	2.44	3.39
Folate	3.91	4.17	5.72
Calcium	2.11	2.20	3.05
Iron	3.12	3.73	4.86
Zinc	1.91	2.06	2.81
Sample Size	1,209	1,080	

SOURCE: Evaluation of the Alabama Food Stamp Cash-Out Demonstration, household survey.

NOTE: This table presents standard errors of the estimates shown in Table IV.7.

ENU = equivalent nutrition unit.

TABLE I.4

STANDARD ERRORS OF ESTIMATES FOR KEY OUTCOME VARIABLES
IN THE ANALYSIS OF THE PERCENTAGE OF HOUSEHOLDS
FOR WHICH NUTRIENT AVAILABILITY EQUALS OR EXCEEDS THE RDA

Nutrient	Standard Error of Mean		
	Check	Coupon	Check-Coupon Difference
Vitamin A	1.24	1.33	1.82
Vitamin C	1.04	1.11	1.53
Vitamin B ₆	1.24	1.30	1.80
Folate	1.02	1.08	1.48
Calcium	1.43	1.52	2.09
Iron	1.10	1.21	1.64
Zinc	1.41	1.48	2.04
Sample Size	1,209	1,080	

SOURCE: Evaluation of the Alabama Food Stamp Cash-Out Demonstration, household survey.

NOTE: This table presents standard errors of the estimates shown in Table IV.8.

APPENDIX J

KEY RESULTS BROKEN DOWN BY URBAN VERSUS RURAL STATUS

All of the analyses of household survey data that are reported in the main body of the report for the overall survey population were also performed separately for the urban and rural subsamples. In general, results for these subsamples are very similar to those for the overall sample, and, as a result, tables with the detailed disaggregated results are not included in the main part of the report. However, this appendix presents selected findings from the disaggregated analysis in Tables J.1 through J.9. Tables J.1 through J.7 are divided into two sections, with Section A presenting urban results and Section B presenting rural results.

Our separate analyses of the urban and rural subsamples produced very few statistically significant differences between check and coupon recipients, thus reinforcing the basic finding from our analysis of the full sample that the pure cash-out demonstration in Alabama had very little effect on household food use and related outcomes. Here we briefly note the three areas of significant difference between check and coupon recipients that we found in conducting the analyses of the urban and rural subsamples:

1. For urban households, but not for rural households, cash-out was accompanied by a statistically significant shift of 1.1 percentage point from fat to carbohydrate as a source of food energy (Tables J.2.A and J.2.B). This shift is almost identical in size to that found among participants in the San Diego Food Stamp Cash-Out Demonstration (Ohls et al., 1992). All of the San Diego households resided in an urban area. Table IV.6, in Volume I of this report, shows that the shift from fat to carbohydrate among check recipients in the full Alabama sample was not statistically significant and was smaller than the shift among urban households.
2. Also for urban households, but not for rural households, the share of total expenditures allocated to utilities (and, hence, to shelter) was greater for check recipients than for coupon recipients (Tables J.7.A and J.7.B). It appears that the greater spending on utilities by urban check recipients was responsible for the full-sample finding of significantly greater spending on utilities by check households (see Table V.2).
3. Rural check recipients allocated a significantly greater share of their total expenditures to dependent care than did rural coupon recipients (Table J.7.B). We observe the opposite pattern in the urban subsample (Table J.7.A).

TABLE J.1.A
MONEY VALUE OF FOOD USED AT HOME
IN URBAN HOUSEHOLDS
(In Dollars)

Measure of Weekly Food Use	Mean Value		Difference in Means		
	Check	Coupon	Absolute	Percentage	t-Statistic
Money Value of Food Used at Home					
Purchased food	59.53	56.77	2.76	4.87	1.26
Nonpurchased food	3.60	3.67	-0.07	-1.87	0.14
All food used at home	63.13	60.44	2.69	4.46	1.17
Money Value of Food Used at Home per ENU					
Purchased food	34.20	34.76	-0.56	-1.60	0.51
Nonpurchased food	2.03	2.20	-0.17	-7.72	0.55
All food used at home	36.23	36.95	-0.72	-1.96	0.64
Money Value of Food Used at Home per AME					
Purchased food	29.27	29.78	-0.51	-1.70	0.52
Nonpurchased food	1.82	1.92	-0.10	-5.36	0.39
All food used at home	31.09	31.70	-0.61	-1.92	0.60
Sample Size	583	506			

SOURCE: Evaluation of the Alabama Food Stamp Cash-Out Demonstration, household survey.

NOTE: One-tailed statistical tests for (1) lower money value of purchased food and all food used at home by check recipients, and (2) greater money value of nonpurchased food used at home by check recipients were performed on the check-coupon differences shown in this table.

None of the differences shown in this table is statistically significant at the 90 percent confidence level or higher.

ENU = equivalent nutrition unit; AME = adult male equivalent.

TABLE J.1.B
MONEY VALUE OF FOOD USED AT HOME
IN RURAL HOUSEHOLDS
(In Dollars)

Measure of Weekly Food Use	Mean Value		Difference in Means		
	Check	Coupon	Absolute	Percentage	t-Statistic
Money Value of Food Used at Home					
Purchased food	51.68	53.15	-1.47	-2.78	0.79
Nonpurchased food	6.00	5.60	0.40	7.21	0.65
All food used at home	57.68	58.75	-1.07	-1.82	0.52
Money Value of Food Used at Home per ENU					
Purchased food	32.72	32.70	0.02	0.05	0.02
Nonpurchased food	3.56	3.24	0.32	9.92	0.90
All food used at home	36.28	35.94	0.34	0.94	0.32
Money Value of Food Used at Home per AME					
Purchased food	29.57	29.26	0.31	1.05	0.33
Nonpurchased food	3.38	2.94	0.44	14.92	1.27
All food used at home	32.95	32.20	0.75	2.32	0.75
Sample Size	626	574			

SOURCE: Evaluation of the Alabama Food Stamp Cash-Out Demonstration, household survey.

NOTE: One-tailed statistical tests for (1) lower money value of purchased food and all food used at home by check recipients, and (2) greater money value of nonpurchased food used at home by check recipients were performed on the check-coupon differences shown in this table.

None of the differences shown in this table is statistically significant at the 90 percent confidence level or higher.

ENU = equivalent nutrition unit; AME = adult male equivalent.

TABLE J.2.A
AVAILABILITY OF FOOD ENERGY AND PROTEIN
IN URBAN HOUSEHOLDS

Nutrient	Mean Value		Difference in Means		
	Check	Coupon	Absolute	Percentage	t-Statistic
Food Energy (percent of RDA)	154.83	155.72	-0.89	-0.58	0.19
Percent for Which Food Energy Equals or Exceeds RDA	75.64	76.68	-1.04	-1.35	0.40
Protein (percent of RDA)	267.82	270.92	-3.10	-1.14	0.37
Percent for Which Protein Equals or Exceeds RDA	94.17	95.45	-1.28	-1.35	0.96
Percent of Food Energy from:					
Protein	14.85	14.95	-0.10	-0.70	0.51
Fat	42.41	43.48	-1.07	-2.48	2.06 **
Carbohydrate	42.75	41.57	1.18	2.84	2.02 **
Sample Size	583	506			

SOURCE: Evaluation of the Alabama Food Stamp Cash-Out Demonstration, household survey.

NOTE: Nutrient availability from food used at home is given per equivalent nutrition unit, which is defined as the number of equivalent adult males eating all of their weekly meals from the household food supply.

One-tailed statistical tests for lower availability of nutrients among check recipients were performed on the check-coupon differences shown in the first four rows of this table. Two-tailed tests were performed on the check-coupon differences in the percentages of food energy from protein, fat, and carbohydrate.

RDA = recommended dietary allowance.

**Statistically significant at the 95 percent confidence level, two-tailed test.

TABLE J.2.B
AVAILABILITY OF FOOD ENERGY AND PROTEIN
IN RURAL HOUSEHOLDS

Nutrient	Mean Value		Difference in Means		
	Check	Coupon	Absolute	Percentage	t-Statistic
Food Energy (percent of RDA)	169.05	166.52	2.53	1.52	0.56
Percent for Which Food Energy Equals or Exceeds RDA	83.39	82.58	0.81	0.98	0.37
Protein (percent of RDA)	249.19	248.47	0.72	0.29	0.10
Percent for Which Protein Equals or Exceeds RDA	96.01	96.52	-0.51	-0.53	0.46
Percent of Food Energy from:					
Protein	13.56	13.54	0.02	0.14	0.10
Fat	42.42	42.50	-0.08	-0.18	0.16
Carbohydrate	44.02	43.96	0.06	0.14	0.11
Sample Size	626	574			

SOURCE: Evaluation of the Alabama Food Stamp Cash-Out Demonstration, household survey.

NOTE: Nutrient availability from food used at home is given per equivalent nutrition unit, which is defined as the number of equivalent adult males eating all of their weekly meals from the household food supply.

One-tailed statistical tests for lower availability of nutrients among check recipients were performed on the check-coupon differences shown in the first four rows of this table. Two-tailed tests were performed on the check-coupon differences in the percentages of food energy from protein, fat, and carbohydrate.

None of the differences shown in this table is statistically significant at the 90 percent confidence level or higher

RDA = recommended dietary allowance.

TABLE J.3.A
NUTRIENT AVAILABILITY PER ENU IN URBAN HOUSEHOLDS
(Percentage of RDA)

Nutrient	Percentage		Difference in Percentages		
	Check	Coupon	Absolute	Percentage	t-Statistic
Vitamin A	245.37	236.61	8.76	3.70	0.58
Vitamin C	259.02	263.29	-4.27	-1.62	0.37
Vitamin B ₆	158.54	158.37	0.17	0.11	0.03
Folate	227.26	220.87	6.39	2.89	0.71
Calcium	107.63	103.00	4.63	4.50	1.18
Iron	174.77	180.03	-5.26	-2.92	0.68
Zinc	129.29	133.74	-4.45	-3.33	1.03
Sample Size	583	506			

SOURCE: Evaluation of the Alabama Food Stamp Cash-Out Demonstration, household survey.

NOTE: Nutrient availability from food used at home is given per equivalent nutrition unit (ENU), which is defined as the number of equivalent adult males eating all of their weekly meals from the household food supply.

One-tailed statistical tests for lower availability of nutrients among check recipients were performed on the check-coupon differences shown in this table.

None of the differences shown in this table is statistically significant at the 90 percent confidence level or higher.

RDA = recommended dietary allowance.

TABLE J.3.B
NUTRIENT AVAILABILITY PER ENU IN RURAL HOUSEHOLDS
(Percentage of RDA)

Nutrient	Percentage		Difference in Means		
	Check	Coupon	Absolute	Percentage	t-Statistic
Vitamin A	210.51	223.63	-13.12	-5.87	1.16
Vitamin C	242.81	248.44	-5.63	-2.27	0.52
Vitamin B ₆	156.71	156.35	0.36	0.22	0.08
Folate	220.85	222.40	-1.55	-0.70	0.21
Calcium	134.11	130.48	3.63	2.78	0.81
Iron	192.57	187.26	5.31	2.84	0.87
Zinc	125.42	124.57	0.85	0.68	0.23
Sample Size	626	574			

SOURCE: Evaluation of the Alabama Food Stamp Cash-Out Demonstration, household survey.

NOTE: Nutrient availability from food used at home is given per equivalent nutrition unit (ENU), which is defined as the number of equivalent adult males eating all of their weekly meals from the household food supply.

One-tailed statistical tests for lower availability of nutrients among check recipients were performed on the check-coupon differences shown in this table.

None of the differences shown in this table is statistically significant at the 90 percent confidence level or higher.

RDA = recommended dietary allowance.

TABLE J.4.A
NUTRIENT AVAILABILITY PER ENU IN URBAN HOUSEHOLDS
(Percentage of Households for Which Availability
Equals or Exceeds the RDA)

Nutrient	Percentage		Difference in Percentages		
	Check	Coupon	Absolute	Percentage	t-Statistic
Vitamin A	74.79	72.53	2.26	3.11	0.84
Vitamin C	83.70	84.58	-0.88	-1.04	0.40
Vitamin B ₆	72.56	74.51	-1.95	-2.62	0.73
Folate	81.30	82.41	-1.11	-1.34	0.47
Calcium	44.43	40.91	3.52	8.60	1.17
Iron	76.16	76.48	-0.32	-0.42	0.13
Zinc	60.89	63.64	-2.75	-4.31	0.93
Sample Size	583	506			

SOURCE: Evaluation of the Alabama Food Stamp Cash-Out Demonstration, household survey.

NOTE: Nutrient availability from food used at home is given per equivalent nutrition unit (ENU), which is defined as the number of equivalent adult males eating all of their weekly meals from the household food supply.

One-tailed statistical tests for lower availability of nutrients among check recipients were performed on the check-coupon differences shown in this table.

None of the differences shown in this table is statistically significant at the 90 percent confidence level or higher.

RDA = recommended dietary allowance.

TABLE J.4.B

NUTRIENT AVAILABILITY PER ENU IN RURAL HOUSEHOLDS
(Percentage of Households for Which Availability
Equals or Exceeds the RDA)

Nutrient	Percentage		Difference in Percentages		
	Check	Coupon	Absolute	Percentage	t-Statistic
Vitamin A	76.20	75.61	0.59	0.78	0.24
Vitamin C	84.98	83.62	1.36	1.63	0.65
Vitamin B ₆	77.48	77.00	0.48	0.61	0.19
Folate	89.14	87.98	1.16	1.32	0.63
Calcium	62.14	59.06	3.08	5.22	1.09
Iron	87.86	83.62	4.24	5.07	2.09
Zinc	60.54	59.06	1.48	2.51	0.52
Sample Size	626	574			

SOURCE: Evaluation of the Alabama Food Stamp Cash-Out Demonstration, household survey.

NOTE: Nutrient availability from food used at home is given per equivalent nutrition unit (ENU), which is defined as the number of equivalent adult males eating all of their weekly meals from the household food supply.

One-tailed statistical tests for lower availability of nutrients among check recipients were performed on the check-coupon differences shown in this table.

None of the differences shown in this table is statistically significant at the 90 percent confidence level or higher.

RDA = recommended dietary allowance.

TABLE J.5.A

RECIPIENT PERCEPTIONS OF ADEQUACY OF HOUSEHOLD
FOOD SUPPLY IN URBAN HOUSEHOLDS
(Percentage of Households)

Measure of Household Food Supply	Mean Value		Difference in Means		
	Check	Coupon	Absolute	Percentage	t-Statistic
Adequacy of Food Eaten During Past Month					
Enough of types of food we want to eat	38.24	32.10	6.14	19.13	2.18
Enough, but not always types we want to eat	42.65	43.97	-1.32	-3.01	0.45
Sometimes or often not enough	19.12	23.38	-4.26	-18.22	1.76
Any Days Household Without Food or Resources During Past Month?					
Yes	25.49	29.68	-4.19	-14.13	1.59
Number of Days ^a	4.96	5.29	-0.33	-6.27	0.80
Any Household Member Skip Meals Due to Inadequate Food or Resources During Past Month?					
Yes	10.46	12.06	-1.60	-13.28	0.86
No. of days meals were skipped ^b	5.48	4.63	0.85	18.57	0.97
Sample Size	612	539			

SOURCE: Evaluation of the Alabama Food Stamp Cash-Out Demonstration, household survey.

NOTE: One-tailed statistical tests for lower perceptions of food adequacy among check recipients were performed on the check-coupon differences shown in this table.

None of the differences shown in this table is statistically significant at the 90 percent confidence level or higher.

"Past month" is the month preceding the survey.

^aFor households reporting at least one day without food or resources to buy food during the past month.

^bFor households reporting that a household member skipped one or more meals on at least one day during the past month.

TABLE J.5.B

RECIPIENT PERCEPTIONS OF ADEQUACY OF HOUSEHOLD
FOOD SUPPLY IN RURAL HOUSEHOLDS
(Percentage of Households)

	Mean Value		Difference in Means		
	Check	Coupon	Absolute	Percentage	t-Statistic
Adequacy of Food Eaten During Past Month					
Enough of types of food we want to eat	32.81	35.81	-3.00	-8.37	1.11
Enough, but not always types we want to eat	53.97	50.00	3.97	7.93	1.39
Sometimes or often not enough	13.06	14.19	-1.13	-7.93	0.58
Any Days Household Without Food or Resources During Past Month?					
Yes	17.11	17.74	-0.63	-3.55	0.29
Number of days ^a	5.07	5.86	-0.79	-13.88	1.53
Any Household Member Skip Meals due to Inadequate Food or Resources During Past Month?					
Yes	6.07	7.94	-1.87	-23.60	1.29
No. of days meals were skipped ^b	4.67	6.98	-2.31	-33.16	2.21
Sample Size	643	592			

SOURCE: Evaluation of the Alabama Food Stamp Cash-Out Demonstration, household survey.

NOTE: One-tailed statistical tests for lower perceptions of food adequacy among check recipients were performed on the check-coupon differences shown in this table.

None of the differences shown in this table is statistically significant at the 90 percent confidence level or higher

^aPast month" is the month preceding the survey.

^aFor households reporting at least one day without food or resources to buy food during the past month.

^bFor households reporting that a household member skipped one or more meals on at least one day during the past month.

TABLE J.6.A

EXPENDITURES FOR FOOD USED AT HOME AND FOOD USED AWAY FROM HOME
BY URBAN HOUSEHOLDS

Measure of Food Expenditure	Mean Value		Difference in Means		
	Check	Coupon	Absolute	Percentage	t-Statistic
Food Used at Home					
Expenditure for food used at home (per household)	\$255.98	\$244.10	\$11.88	4.87	1.26
Expenditure for food used at home (per AME)	\$125.87	\$128.05	-\$2.18	-1.70	0.52
Percent of total food expenditures for food used at home	95.00	94.80	0.20	0.21	0.31
Percent of meals eaten at home	86.76	85.46	1.30	1.52	1.43
Food Used Away from Home					
Expenditure for food used away from home (per household)	\$15.40	\$15.45	-\$0.05	-0.26	0.02
Expenditure for food used away from home (per AME)	\$7.99	\$8.40	-\$0.41	-4.76	0.33
Percent of total food expenditures for food used away from home	5.00	5.20	-0.20	-3.86	0.31
Percent of meals eaten away from home	13.24	14.54	-1.30	-8.94	1.43
--Paid for	3.42	3.37	0.05	1.46	0.12
--Free	9.82	11.17	-1.35	-12.07	1.66
Total Expenditures for Food					
Sum of the expenditures for food used at home and expenditures for food used away from home (per household)	\$272.44	\$258.98	\$13.46	5.20	1.34
Sum of the expenditures for food used at home and expenditures for food used away from home (per AME)	\$134.84	\$136.25	-\$1.41	-1.03	0.31

SOURCE: Evaluation of the Alabama Food Stamp Cash-Out Demonstration, household survey.

NOTE: One-tailed statistical tests for (1) lower use of food at home and total expenditures for food by check recipients, and (2) greater use of food away from home by check recipients were performed on the check-coupon differences shown in this table.

None of the differences shown in this table is statistically significant at the 90 percent confidence level or higher.

Data are from the main questionnaire only.

TABLE J.6.B

EXPENDITURES FOR FOOD USED AT HOME AND FOOD USED AWAY FROM HOME
BY RURAL HOUSEHOLDS

Measure of Food Expenditure	Mean Value		Difference in Means		
	Check	Coupon	Absolute	Percentage	t-Statistic
Food Used at Home					
Expenditure for food used at home (per household)	\$222.21	\$228.56	-\$6.35	-2.77	0.79
Expenditure for food used at home (per AME)	\$127.14	\$125.82	\$1.32	1.05	0.33
Percent of total food expenditures for food used at home	95.52	95.03	0.49	0.51	0.82
Percent of meals eaten at home	89.97	88.85	1.12	1.26	1.54
Food Used Away from Home					
Expenditure for food used away from home (per household)	\$12.94	\$14.74	-\$1.80	-12.21	0.85
Expenditure for food used away from home (per AME)	\$7.56	\$9.10	-\$1.54	-16.81	0.88
Percent of total food expenditures for food used away from home	4.48	4.97	-0.49	-9.66	0.82
Percent of meals eaten away from home	10.03	11.15	-1.12	-10.04	1.54
--Paid for	2.52	2.98	-0.46	-15.41	1.27
--Free	7.51	8.17	-0.66	-8.04	1.03
Total Expenditures for Food					
Sum of the expenditures for food used at home and expenditures for food used away from home (per household)	\$233.91	\$242.67	-\$8.76	-3.61	1.02
Sum of the expenditures for food used at home and expenditures for food used away from home (per AME)	\$134.67	\$135.30	-\$0.63	-0.47	0.14
Sample Size	626	574			

SOURCE: Evaluation of the Alabama Food Stamp Cash-Out Demonstration, household survey.

NOTE: One-tailed statistical tests for (1) lower use of food at home and total expenditures for food by check recipients, and (2) greater use of food away from home by check recipients were performed on the check-coupon differences shown in this table.

None of the differences shown in this table is statistically significant at the 90 percent confidence level or higher.

Data are from the main questionnaire only.

AME = adult male equivalent.

TABLE J.7.A

URBAN HOUSEHOLD EXPENDITURE SHARES, BY BROAD CONSUMPTION CATEGORY
(Percentage)

Consumption Category	Share of Total Expenditures		Difference in Means		
	Check	Coupon	Absolute	Percentage	t-Statistic
All Food	43.28	43.95	-0.67	-1.50	0.66
Food at home	41.24	41.67	-0.43	-1.03	0.36
Food away from home	2.05	2.28	-0.23	-10.09	0.78
All Shelter	36.90	35.02	1.88	5.22	1.59 [†]
Housing	16.22	16.03	0.19	1.19	0.20
Utilities	20.67	18.98	1.69	8.90	2.01 ^{††}
Medical	3.18	2.71	0.47	17.34	1.03
Transportation	6.70	7.01	-0.31	-4.28	0.55
Clothing	5.64	5.72	-0.08	-1.40	0.15
Education	0.99	1.28	-0.29	-21.88	1.62
Dependent Care	0.55	1.31	-0.76	-58.02	3.27
Recreation	1.21	1.40	-0.19	-13.57	0.94
Personal Items	1.53	1.61	-0.08	-4.35	0.42
Total	100.00	100.00			
Sample Size	583	506			

SOURCE: Evaluation of the Alabama Food Stamp Cash-Out Demonstration, household survey.

NOTE: One-tailed statistical tests for lower expenditure shares for "all food" and "food at home" and for greater expenditure shares for other consumption categories among check recipients were performed on the check-coupon differences shown in this table.

Data are from the main questionnaire only.

[†]Statistically significant at the 90 percent confidence level, one-tailed test.

^{††}Statistically significant at the 95 percent confidence level, one-tailed test.

TABLE J.7.B

RURAL HOUSEHOLD EXPENDITURE SHARES, BY BROAD CONSUMPTION CATEGORY
(Percentage)

Consumption Category	Share of Total Expenditures		Difference in Means		
	Check	Coupon	Absolute	Percentage	t-Statistic
All Food	43.34	42.98	0.36	0.84	0.33
Food at home	41.43	40.91	0.52	1.27	0.48
Food away from home	1.91	2.07	-0.16	-7.73	0.57
All Shelter	31.27	30.85	0.42	1.33	0.42
Housing	12.25	12.28	-0.03	-0.24	0.04
Utilities	19.02	18.57	0.45	2.42	0.59
Medical	6.11	5.96	0.15	2.68	0.25
Transportation	9.75	10.00	-0.25	-2.60	0.38
Clothing	4.84	5.53	-0.69	-12.48	1.40
Education	1.05	1.26	-0.21	-15.87	1.11
Dependent Care	0.68	0.36	0.32	86.11	1.92 [†]
Recreation	1.71	1.78	-0.07	-4.49	0.34
Personal Items	1.25	1.28	-0.03	-2.34	0.22
Total	100.00	100.00			
Sample Size	626	574			

SOURCE: Evaluation of the Alabama Food Stamp Cash-Out Demonstration, household survey.

NOTE: One-tailed statistical tests for lower expenditure shares for "all food" and "food at home" and for greater expenditure shares for other consumption categories among check recipients were performed on the check-coupon differences shown in this table.

Data are from the main questionnaire only.

[†]Statistically significant at the 90 percent confidence level, one-tailed test.

TABLE J.8

URBAN AND RURAL RECIPIENTS' OPINIONS ON WHAT IS GOOD AND BAD
ABOUT CHECKS AND COUPONS
(Percentage of Households)

Recipients' Opinions About Checks and Coupons	Urban Households		Rural Households	
	Check	Coupon	Check	Coupon
What Is Good About Checks				
Can be used for items other than food	48.7	43.2	37.5	36.0
Do not have to go to issuance office	19.0	6.9	13.5	6.9
Have more choices of food stores	3.8	2.0	7.6	5.7
More convenient/easier to spend	4.4	2.2	6.1	2.7
Nothing	10.1	18.6	8.1	11.7
What Is Not Good About Checks				
Does not make sure benefits are spent on food	12.4	34.7	12.9	28.0
Do not budget food expenses well	7.2	2.2	4.2	2.9
Need to pay a fee to cash checks	5.1	4.6	4.8	4.4
Nothing	41.2	17.1	47.1	20.8
What Is Good About Coupons				
Makes sure benefits are spent on food	26.0	36.5	26.4	39.0
No taxes charged	20.4	29.9	15.2	22.1
Can budget food expenses better	13.4	14.8	9.2	10.6
Nothing	11.3	4.5	13.5	2.5
What Is Not Good About Coupons				
Cannot be used for items other than food	22.4	23.7	16.6	18.9
Involves going to issuance office	12.1	9.1	7.2	6.1
Need to stand in line for a long time	8.7	6.7	0.9	1.0
Feel embarrassed using benefits	3.6	5.6	5.1	4.1
Nothing	31.4	35.8	37.2	44.1
Number of Households	612	539	643	592

SOURCE: Evaluation of the Alabama Food Stamp Cash-Out Demonstration, household survey.

TABLE J.9

CHECK-CASHING EXPERIENCES OF URBAN AND RURAL CHECK HOUSEHOLDS
(Percentage of Check Households)

	Urban	Rural
Place Where Checks Are Usually Cashed		
Supermarket or grocery store	71.6	68.3
Bank	17.7	27.0
Was Purchase Required to Cash Check?^a		
Yes	39.3	22.5
No	60.7	77.5
Was a Fee Charged to Cash Check?		
Yes	15.8	3.0
No	84.2	97.0
Fee Paid to Have Checks Cashed^b		
\$0.50 or less	30.9	0.0
\$0.51 to \$2.00	51.6	84.2
\$2.01 to \$5.00	14.4	5.3
\$5.01 or more	3.1	10.5
Mean Fee^b	\$1.53	\$2.42
Median Fee^b	\$1.00	\$2.00
Sample Size	612	643

SOURCE: Evaluation of the Alabama Food Stamp Cash-Out Demonstration, household survey.

^aIncludes only households that cashed checks at retail stores (Urban = 481; Rural = 458).

^bIncludes only households that paid a fee to have checks cashed (Urban = 97; Rural = 19).

APPENDIX K

LETTERS AND BROCHURE SENT TO CASH-OUT HOUSEHOLDS

Once the initial sample of cash-out households was chosen, those households had to be notified about their selection. A letter from the Department of Human Resources county office was sent to all cash-out households explaining cash-out and describing the checks that cash-out households would be receiving; that letter is the first letter in Appendix K. A similar letter was sent to the supplemental households (households added to the cash-out sample after the initial sample was drawn, to compensate for attrition from the demonstration); that letter is the second letter in Appendix K. An informational pamphlet was enclosed with the letters; a copy of that pamphlet is included after the letters in Appendix K.

CLAY .
DEPARTMENT OF HUMAN RESOURCES
P.O. BOX 725
ONE MEMORIAL DRIVE
ASHLAND, ALABAMA 36251

TELEPHONE NO : 354-7156
DHR NUMBER : 140000



STATE OF ALABAMA
DEPARTMENT OF HUMAN RESOURCES

RT 44, BOX 44
LINEVILLE AL 40406

DEAR MR/MS

In cooperation with the U.S. Department of Agriculture, the food Stamp Program is testing a new way to distribute food stamp benefits. In this project, a small number of households are selected at random by computer to receive a state check instead of food stamps. This test will run until about March 1991.

We are reviewing your application for the Food Stamp Program. If you are approved, you will receive a check by mail instead of food stamp coupons. You should receive your first check within 5 days of this notice. During this project, you will receive a check in the mail by the 10th day of the month as long as you are eligible for food stamps.

If you are also receiving state checks for other assistance programs (such as ADC), you will receive a separate check just for your food stamp benefits. Each check will identify the benefit it covers.

Most food stores will cash the check for free when you buy food. (They may require some identification, such as your food stamp id card.) Sales tax will be charged for food you buy with cash. Your food stamp check will be the same amount as your food stamp coupons plus an additional 7% to cover the sales tax.

If you are approved for food stamp benefits, your notice of approval will refer to food stamps. For you, this will mean the check you will receive each month.

The attached pamphlet gives more information about this project. If you have any questions about this letter, please contact your county Food Stamp Office at the address below.

CLAY
DEPARTMENT OF HUMAN RESOURCES
P.O. BOX 725
ONE MEMORIAL DRIVE
ASHLAND, ALABAMA 36251

CLAY
DEPARTMENT OF HUMAN RESOURCES
P.O. BOX 725
ONE MEMORIAL DRIVE
ASHLAND, ALABAMA 36251

TELEPHONE NO : 354-7156

DHR NUMBER : 140000



STATE OF ALABAMA
DEPARTMENT OF HUMAN RESOURCES

RT BOX
LINEVILLE AL 40406

DEAR MR/MS:

In cooperation with the U.S. Department of Agriculture, the food Stamp Program is testing a new way to distribute food stamp benefits. In this project, a small number of households are selected at random by computer to receive a state check instead of food stamps.

You have been chosen for this project. Beginning with the month of , you will receive a check by mail instead of food stamp coupons. If you are also receiving state checks for other assistance programs (such as ADC), you will receive a separate check just for your food stamp benefits. Each check will identify the benefits it covers. The attached pamphlet gives more information about this project.

If your household is required to monthly report and your case is now in suspense you will receive a check, rather than food stamp coupons, when you receive benefits again.

You must participate in this project if you wish to continue to receive food stamp benefits. This test will run for about a year.

Most food stores will cash the check for free when you buy food. (They may require some identification such as your food stamp id card.) Sales tax will be charged for food you buy with cash. Your food stamp check will be the same amount as your food stamp coupons plus an additional 7% to cover the sales tax.

If you have any questions about this letter, please contact your county food Stamp Office at the address below.

CLAY
DEPARTMENT OF HUMAN RESOURCES
P.O. BOX 725
ONE MEMORIAL DRIVE
K7 ASHLAND, ALABAMA 36251

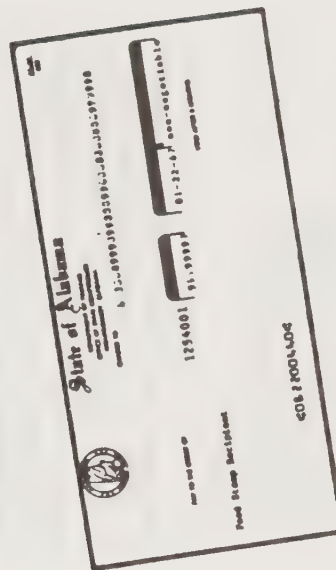
A large, stylized, high-contrast graphic of the word "NEW" in a jagged, starburst shape. The word is written in a bold, sans-serif font, with the letters appearing to be cut out of a dark, textured background. The entire graphic is surrounded by a jagged, starburst-like border, giving it a sense of excitement and novelty.

FOOD STAMP BENEFITS



**STATE OF ALABAMA
DEPARTMENT OF HUMAN RESOURCES
DHR Pamphlet Series #90-1**

An Affirmative Action/Equal Opportunity Employer



A NEW WAY TO GET FOOD STAMP BENEFITS

In cooperation with the United States Department of Agriculture, Food and Nutrition Service, the Food Stamp Program will test a new way to get food stamp benefits. Beginning April 1, 1990, some households will receive a check instead of food stamps. The test will last one year.

WHO WILL GET A FOOD STAMP CHECK?

About 1850 food stamp households from 12 counties will be included in the test to get a check instead of food stamps. These households will be chosen at random by computer. If chosen, the household **MUST** accept a check instead of food stamps. Households chosen to get a check will be notified by mail. Checks will be mailed to the household.

CAN A HOUSEHOLD CHOOSE TO RECEIVE A CHECK INSTEAD OF COUPONS?

No. Only those households chosen at random by computer can get a food stamp check. All other eligible food stamp households will continue to receive food stamp coupons.

HOW MUCH WILL THE FOOD STAMP CHECK BE?

The food stamp check will be the same amount as the household's food stamp coupons would have been plus an additional 7% to help pay for sales tax. For example, a household approved for a \$100 food stamp allotment would receive a check for \$107. The \$7 is for sales tax. People who buy food with food stamp coupons do not pay sales tax.

WILL ELIGIBILITY RULES BE DIFFERENT?

No. Eligibility rules will be the same for households receiving a food stamp check as for households receiving food stamp coupons.

WILL A FOOD STAMP CHECK AFFECT OTHER BENEFITS?

No. Receiving a food stamp check will be the same as receiving food stamp coupons. A food stamp check will not change the amount of other benefits such as Aid to Dependent Children, Social Security, SSI, housing assistance through HUD, WIC, the school lunch program or the school breakfast program.

HOW CAN A FOOD STAMP CHECK BE CASHED?

Most stores and banks will cash food stamp checks if proper identification is available. When taking the check to be cashed, the household member should take identification such as the Household Identification Card or Driver's License.

A REMINDER!

If you receive a food stamp check, you will not receive food stamp coupons.

A food stamp check is intended to buy food for the household just as food stamp coupons.

QUESTIONS?

If you have questions about this new program, call or write your county Food Stamp Office.

APPENDIX L

ISSUANCE PROBLEM SURVEY INSTRUMENT

ALABAMA FOOD STAMP CASH-OUT DEMONSTRATION

ISSUANCE PROBLEM SURVEY

Worker: _____ Co.: _____ Date: _____
Case ID: _____ Client: _____

1. What was the issuance problem?

CIRCLE ALL
THAT APPLY

- Data entry procedure or sequence was unknown or didn't work.....1
Client never received the warrant.....2
Client received the warrant, but it was destroyed, lost, or stolen before being endorsed and cashed by the client.....3
Warrant amount or payee incorrect.....4
Other (SPECIFY): _____...5

2. How did you find out about the problem?

CIRCLE ALL
THAT APPLY

- Upon attempting to enter data into the computer.....1
Off-line printed report, "Outstanding Returned Warrants".....2
Client.....3
Other (SPECIFY): _____...4

3. What steps did you take to resolve the problem?

CIRCLE ALL
THAT APPLY

- I contacted the Alabama DHR for more information.....1
I contacted the client for more information.....2
I corrected client records.....3
I corrected computer records.....4
I had the client sign an affidavit regarding a lost warrant.....5
Other (SPECIFY): _____...6

4. What was the resolution of the problem?

CIRCLE ALL
THAT APPLY

- Computer or data entry problem was corrected...1
Client address was corrected.....2
Original warrant was eventually received by client.....3
Original warrant was voided.....4
Replacement or supplemental warrant was issued.....5
Other (SPECIFY): _____...6

5. How many days passed between the time that you first became aware of the problem and its final resolution?

! ! ! DAYS

6. How much of your actual time was spent resolving this problem? Include the time spent entering data, checking records, locating or contacting the client, updating records, etc. PLEASE RECORD MINUTES AND/OR HOURS.

! ! ! AND/OR ! ! !
HOURS MINUTES

7. Thank you very much for your time and cooperation. We would like to call you if we have questions about this case. PLEASE RECORD YOUR OFFICE TELEPHONE NUMBER BELOW.

! ! ! - ! ! !
TELEPHONE NUMBER

EXTENSION (if any) _____

APPENDIX M

TECHNICAL INFORMATION ON THE ESTIMATION OF CASH-OUT ISSUANCE, PLANNING, AND IMPLEMENTATION COSTS

The purpose of this appendix is to describe how we calculated (1) county, state, and federal coupon- and cash-issuance costs, and (2) the costs of planning and implementing the cash-out demonstration. The issuance costs are direct costs only, and do not include indirect costs, such as overhead. They include labor costs (salary and fringe benefits) for all staff involved in issuance; postage for all mail issuance; insurance, transportation, security, and storage for coupons; paper and printing for warrants; and federal costs for the printing, storage, distribution, and shipping of coupons; Federal Reserve Bank fees for coupons and checks, and the costs of authorizing and monitoring retail stores. Because overhead is not included, the cost difference between coupon and cash issuance might be somewhat understated; overhead might be somewhat lower under cash issuance, because the use of such resources as physical space might be less.

A. COUNTY-LEVEL COUPON-ISSUANCE COSTS

To calculate county-level coupon issuance costs, we first obtained from the Alabama Cash-Out Project Manager a list of state biweekly salary ranges (as shown in Table M.1), and a list of the county-level workers, with their salary ranges identified. We assigned the midpoint of the salary range to each worker and entered the position and salary range into Table M.2. Salaries of specific workers are not identified; we use position titles, rather than workers' names.

For each county office that we visited, on the basis of the information obtained during the site visits, we added up the total percentage or amount of time spent on coupon issuance each month for each worker who was involved in issuance in any way. We calculated monthly salaries by multiplying the biweekly salary by 26 and dividing the result by 12; we calculated hourly rates by dividing the biweekly rate by 80. Table M.3 shows the time spent on issuance by each worker, the monthly or hourly salary, the monthly direct labor cost of issuance for that worker, and the total monthly direct labor cost of issuance for each county. Note the wide range in staffing patterns; in one county, for

TABLE M.1
BIWEEKLY SALARY RANGES, STATE OF ALABAMA, 1990

Range Number	From	To
28	359.80	460.50
42	471.90	650.20
44	495.60	683.10
46	507.80	717.70
50	560.70	792.90
51	560.70	812.70
56	619.20	918.50
58	650.20	964.90
59	666.30	989.40
64	735.90	1,118.00
68	812.70	1,232.00
71	874.60	1,325.00
72	918.50	1,393.00
73	964.90	1,463.00
74	1,014.00	1,536.00
75	1,065.00	1,614.00
76	1,118.00	1,695.00
77	1,174.00	1,783.00
78	1,232.00	1,876.00
82	1,536.00	2,342.00

SOURCE: Evaluation of the Alabama Food Stamp Cash-Out Demonstration.

TABLE M.2

COUNTY-LEVEL STAFF SALARY INFORMATION

Position, County, and Salary Range Number	Midpoint of Biweekly Salary Range
DHR Directors	
Clay County (76)	\$1,406.50
DeKalb County (76)	1,406.50
Fayette County (76)	1,406.50
Jefferson County (Bessemer Office) (73)	1,213.95
Program Supervisors	
Clay County (68)	1,022.35
Conecuh County (68)	1,022.35
Dale County (68)	1,022.35
DeKalb County (71)	1,022.35
Fayette County (68)	1,022.35
Jefferson County (Main Office, PA) (73)	1,213.95
Jefferson County (Main Office, NPA) (73)	1,213.95
Lauderdale County, PA (68)	1,022.35
Lauderdale County, NPA (68)	1,022.35
Issuance Supervisors	
Jefferson County (Bessemer Office) (51)	686.70
Jefferson County (Bessemer and Main Offices) (68)	1,022.35
Jefferson County (N. Birmingham Office) (68)	1,022.35
Montgomery County (56)	768.85
Account Clerk	
Jefferson County (Main Office) (50)	676.80
Issuance Cashiers	
Clay County (50)	676.80
Conecuh County (50)	676.80
Dale County (42)	561.05
DeKalb County (46)	612.75
Fayette County (46)	612.75
Jefferson County (Bessemer Office) (44)	589.35

TABLE M.2 (continued)

Position, County, and Salary Range Number	Midpoint of Biweekly Salary Range
Issuance Cashiers (continued)	
Jefferson County (Bessemer Office) (46)	612.75
Jefferson County (Bessemer Office) (46)	612.75
Jefferson County (Main Office) (44)	589.35
Jefferson County (Main Office) (44)	589.35
Jefferson County (N. Birmingham Office) (46)	612.75
Lauderdale County (46)	612.75
Montgomery County (44)	589.35
Montgomery County (44)	589.35
Issuance Receptionists	
Fayette County (46)	612.75
Jefferson County (Bessemer Office) (42)	561.05
Jefferson County (Main Office) (46)	612.75
Jefferson County (N. Birmingham Office) (42)	561.05
Montgomery County (42)	561.05
Data Entry Clerks	
	612.75
Clay County (46)	827.85
Conecuh County (59)	561.05
DeKalb County (42)	612.75
Fayette County (46)	612.75
Lauderdale County (46)	
Food Stamp Certification Workers	
	807.55
Clay County (58)	807.55
Fayette County (58)	827.85
Jefferson County (Main Office) (59)	827.85
Jefferson County (Main Office) (59)	827.85
Jefferson County (Main Office) (59)	827.85
AFDC Eligibility Worker	
Clay County (59)	827.85

SOURCE: Evaluation of the Alabama Food Stamp Cash-Out Demonstration.

PA = Public Assistance; NPA = Non-Public Assistance; AFDC = Aid to Families with Dependent Children.

TABLE M.3

MONTHLY DIRECT LABOR COST OF COUPON ISSUANCE, BY COUNTY

County	Position	Time Period	Total Time on Issuance	Salary	Direct Labor Cost	County Total Direct Labor Cost
Clay	Supervisor	Entire month	30%	\$2,215/mo.	\$665	\$1,263
	Cashier	3 OTC days	100%	1,466/mo.	203	
	Cashier	Rest of month	2.5 hrs./day	8.46/hr.	395	
Conecuh	Supervisor	Entire month	25%	2,215/mo.	554	2,090
	Cashier	1st half of month	100%	1,466/mo.	733	
	Cashier Clerk	2nd half of month 10 mail days	6.5 hrs./day 2 hrs./day	8.46/hr. 10.35/hr.	596 207	
Dale	Supervisor	Entire month	25%	2,215/mo.	554	1,468
	Cashier	1st 10 days	100%	1,215/mo.	561	
	Cashier Clerk	Rest of month 1 mail day	25% 2.5 hrs./mo.	1,215/mo. 7.66/hr.	161 192	
DeKalb	Director	Entire month	20%	3,047/mo.	609	3,536
	Supervisor	Entire month	75%	2,383/mo.	1,787	
	Cashier Clerk	1st half of month Rest of month Entire month	100% 70% 1.5 hrs./mo.	1,328/mo. 1,328/mo. 7.01/hr.	664 465 11	
Fayette	Supervisor	Entire month	22.5%	2,215/mo.	498	2,211
	Receptionist	1st 10 days	75%	1,328/mo.	459	
	Receptionist Cashier	Rest of month Entire month	7.5% 90%	1,328/mo. 1,328/mo.	59 1,195	
Jefferson	Supervisor	Entire month	5%	1,488/mo.	74	16,982
	Receptionist	1st 15 days	100%	1,216/mo.	839	
	Receptionist Cashier	Last week Entire month	50% 100%	1,216/mo. 1,277/mo.	188 1,277	

TABLE M.3 (continued)

County	Position	Time Period	Total Time on Issuance	Salary	Direct Labor Cost	County Total Direct Labor Cost
Jefferson (continued)	Cashier	1st 15 days	100%	1,328/mo.	916	
	Cashier	Last week	87.5%	1,328/mo.	360	
	Cashier	1st 15 days	100%	1,328/mo.	916	
	Cashier	Last week	87.5%	1,328/mo.	360	
	Supervisor	Entire month	60%	2,630/mo.	1,578	
	Supervisor	Entire month	9%	2,630/mo.	237	
	Supervisor	Entire month	70%	2,215/mo.	1,551	
	Clerk	Entire month	82.5%	1,466/mo.	1,210	
	Receptionist	Entire month	100%	1,328/mo.	1,328	
	Cashier	Entire month	100%	1,277/mo.	1,277	
	Cashier	Entire month	100%	1,277/mo.	1,277	
	Clerk	Entire month	12 hrs./mo.	7.66/hr.	92	
	Supervisor	1st 15 days	40%	2,215/mo.	613	
	Receptionist	1st 15 days	100%	1,216/mo.	841	
	Cashier	1st 15 days	100%	1,328/mo.	919	
Jefferson County Leeds Office Adamsville Office		Entire month			671	
		Entire month			458	
Lauderdale	Supervisor	Entire month	75%	2,215/mo.	1,661	
	Supervisor	Entire month	10%	2,215/mo.	222	
	Cashier	1st 14 days	100%	1,328/mo.	863	
	Cashier	Rest of month	95%	1,328/mo.	441	
	Clerk	Entire month	20 hrs./mo.	7.66/hr.	153	3,340
Montgomery	Supervisor	Entire month	100%	1,666/mo.	1,666	
	Claims Super.	Entire month	10 hrs./mo.	9.61/hr.	96	
	Receptionist	Entire month	100%	1,216/mo.	1,216	
	Cashier	1st 10 days	100%	1,277/mo.	589	
	Cashier	Entire month	100%	1,277/mo.	1,277	4,844

SOURCE: Evaluation of the Alabama Food Stamp Cash-Out Demonstration.

OTC = over the counter.

example, the county Department of Human Resources (DHR) director was involved in coupon issuance, primarily in reconciling the inventory and in completing reports. In addition, the amount of time spent on issuance by the program supervisors varied widely among the counties. These differences were the result of variations in interest, expertise, and customs among the staffs.

We calculated total coupon-issuance costs per case-month, as shown in Table M.4. A county's per-case-month cost of coupon issuance is obtained by dividing its total monthly cost by its monthly food stamp caseload; thus, costs pertaining to caseloads of different sizes can be compared.

"Caseload" refers to the number of households that received benefits during the month.

We then completed Table M.4 as follows:

- We calculated fringe benefits as 25 percent of total direct labor costs; we obtained that 25 percent figure from the Alabama Cash-Out Project Manager.
- We obtained security costs during the site visits.
- We obtained postage costs from the supervisor in the state Food Stamp Accounting office.
- To obtain the cost per case-month, we divided total costs by the October 1990 caseload.
- To fill in costs for the four demonstration counties that we did not visit, all of which are rural, we obtained per-case-month costs for the six visited rural counties for labor, security, and postage, and multiplied by the caseload of the unvisited counties (8,435). We added the costs and divided by the caseload of the unvisited counties, obtaining a total coupon-issuance cost per case-month for those four counties of \$2.09.
- We then added all categories of costs, divided by the total caseload for all 12 demonstration counties (51,071), and obtained a cost per case-month for all demonstration counties of \$1.32.

Storage, transportation, and insurance costs, many of which are incurred at the county level, are paid for at the state level. In many cases, these costs cannot be separated out by county. Therefore, they are covered in the section on state costs.

TABLE M.4

COUNTY-LEVEL COUPON ISSUANCE COSTS PER CASE-MONTH

County	Direct Labor	Fringes	Security	Postage	Total Cost	Monthly Caseload ^a	Cost per Case-Month
Clay	\$1,263	\$316	\$---	\$25	\$1,604	377	\$4.25
Conecuh	2,090	523	---	175	2,787	1,375	2.03
Dale	1,468	367	---	74	1,909		1.14
DeKalb	3,536	884	---	---	4,420	1,882	2.35
Fayette	2,211	553	---	---	2,7	960	2.88
Jefferson ^b (U)	16,982	4,246	4,000	94	25,322	23,703	1.07
Lauderdale	3,340	835	30	211	4,416	2,328	1.90
Montgomery (U)	4,844	1,211	552	83	6,690	10,344	0.65
Total for Visited Urban Counties	21,826	5,457	4,552	177	32,012	34,047	0.94
Total for Visited Rural Counties	13,908	3,477	30	485	17,900	8,589	2.08
Total for Four Unvisited Rural Counties ^c	13,665	3,416	25	506	17,612	8,435	2.09
Total for All Demonstration Counties ^d	49,399	12,350	4,607	1,168	67,524	51,071	1.32 ^e

SOURCE: Evaluation of the Alabama Food Stamp Cash-Out Demonstration.

U = urban county.

TABLE M.4 (continued)

^aFor October 1990.

^bLabor costs for each Jefferson County office are as follows:

Bessemer	\$4,930.87
Main	8,548.61
N. Birmingham	2,373.76
Leeds	671.07
Adamsville	457.61

^cSite visits were not conducted in four rural counties--Choctaw, Dallas, Marion, and Pickens. However, so that the per-case-month cost for the 12 demonstration counties was not biased toward the lower urban figure (\$0.94, compared with \$2.08 for the rural visited counties), we estimated the issuance costs in these counties on the basis of the average per-case-month cost by category in the 6 rural counties that we did visit, added those estimates to the total, and calculated a new total per-case-month cost for all 12 demonstration counties.

^dThis estimate is based on a caseload count that includes cash-out households. If cash-out households were excluded, the total cost per case-month would be 5 percent higher.

^eThis cost figure reflects the 67 percent urban/33 percent rural composition of the demonstration counties' caseload. If this estimate is weighted to reflect the statewide 46/54 composition, it increases to \$1.53 per case-month.

B. COUNTY-LEVEL CASH-ISSUANCE COSTS

Most of the costs of cash issuance of food stamp benefits in Alabama were incurred at the state level. The only notable county-level cost of cash issuance was the time spent by certification and eligibility workers to resolve cash-issuance problems.¹ To obtain data on the amount of time that the workers spent on cash-issuance problems, we conducted a mail survey of all eligibility and certification workers in the 12 demonstration counties. This survey asked the workers about their experience with cash-issuance problems during the cash-out demonstration, including the types of problems encountered, how those problems were resolved, and the time spent resolving them. The one-page instrument (shown in Appendix L) was sent to each of the 87 certification and eligibility workers who had dealt with one or more cash-issuance problems, and asked about each of the 152 cash-issuance problems that were officially recorded during the period of May through October 1990. The response rate was 100 percent.

Based on the surveys received from the workers, the average time spent resolving cash-issuance problems, from May through October, was 1.04 hours per problem. The average biweekly salary midpoint for certification and eligibility workers, from Table M.2, is \$819.73, which is \$10.25 per hour. Table M.5 shows the number of issuance problems in October for each county office, and the corresponding labor costs. October was used as a representative month for cash issuance, because it was the fifth month of cash-out; as software and procedural problems were worked out during those months, and workers and clients became accustomed to the cash system and its requirements, the number of cash-issuance problems fell significantly--from 59 problems in May, to 10 problems in October. The cost of resolving the cash-issuance problems in October was \$0.06 per case-month for cash-issuance cases, down from \$0.38 in May.

¹In Alabama, "certification worker" refers to caseworkers who handle food stamp applications, and "eligibility worker" refers to caseworkers who handle Aid to Families with Dependent Children (AFDC) applications, including joint AFDC and food stamp applications. Thus, the certification workers resolve food stamp issuance problems for households receiving food stamps but not receiving AFDC, and the eligibility workers resolve food stamp issuance problems for households receiving both food stamps and AFDC.

TABLE M.5
COUNTY-LEVEL CASH-ISSUANCE COSTS
PER CASE-MONTH

	Number of Issuance Problems, October 1990	Direct Labor Cost ^a	Fringe Benefits	Total Labor Cost
Choctaw	0	\$0	\$0	\$0
Clay	0	0	0	0
Conecuh	1	10.66	2.67	13.33
Dale	2	21.32	5.33	26.65
Dallas	1	10.66	2.67	13.33
Dekalb	0	0	0	0
Fayette	0	0	0	0
Jefferson	1	10.66	2.67	13.33
Lauderdale	1	10.66	2.67	13.33
Marion	0	0	0	0
Montgomery	1	10.66	2.67	13.33
Pickens	3	31.98	8.00	39.98
Total	10	106.60	26.68	133.28
Per case-month ^b				0.06

SOURCE: Evaluation of the Alabama Food Stamp Cash-Out Demonstration.

^aThe average biweekly salary midpoint for eligibility and certification workers was \$819.73, or \$10.25 per hour. According to the mail survey of the workers, the average time spent handling one problem was 1.04 hours.

^bBased on a cash-issuance caseload in October of 1990 of 2,124.

C. STATE-LEVEL COUPON-ISSUANCE COSTS

We estimated state-level coupon-issuance costs as follows. For all state workers involved in coupon issuance or in planning or implementing the demonstration, we added up their time in a way analogous to that used for county workers. The salary range midpoints for these staff are shown in Table M.6; as with county-level workers, salaries of specific workers are not identified. The number of state staff involved in coupon issuance is small; it includes Food Stamp Accounting staff in the Fiscal Administration Division (to compile and maintain reports and to oversee the state bulk storage supply), auditors in the DHR Audit Office (to count the bulk storage inventory and to complete the FNS-250 and FNS-260 reports), and staff in the Information Systems Division (to produce the food stamp coupon issuance listings). Their labor costs were estimated as follows:

- The supervisor of Food Stamp Accounting, Fiscal Administration Division, reported that she spends 25 percent of her time maintaining inventory and issuance records and ordering the state bulk storage supply. Twenty-five percent of her monthly salary (\$3,203.42) equals \$800.86 in direct labor costs. With the 25 percent fringe figure, the total cost for coupon accounting is \$1,001.08.
- The DHR auditor reported that he spends roughly four hours per month completing the FNS-250 and FNS-260 reports (at an annual salary of around \$42,000), which amounts to \$161.52, plus \$40.38 for fringe benefits. In addition, his food stamp auditor in Gadsden spends about three hours per month counting the physical inventory (at an annual salary of around \$32,000), and is reimbursed for the mileage for the 125-mile round trip, at 22.5 cents per mile; his time costs \$92.31, plus \$23.08 for fringe benefits, plus \$28.13 for mileage. Thus, the total cost for coupon auditing is \$345.42.
- The unit supervisor in Food Stamp Program Maintenance within the Information Systems Division spends approximately one hour every day producing the food stamp coupon issuance listings. His monthly salary is \$2,762.93; one hour per day is 12.5 percent of his time; thus, the monthly direct labor cost is \$345.37. With fringe benefits, that cost is \$431.71.

We then completed Table M.7, with insurance, storage, and transportation costs from the Finance Division. The average monthly caseload for FY 1990 was used as the denominator, as several of the state-level coupon-issuance costs were average monthly figures for FY 1990.

TABLE M.6
STATE-LEVEL STAFF SALARY INFORMATION

Name, Position, and Salary Range Number	Midpoint of Biweekly Salary Range
Food Stamp Division	
Acting Director (78)	\$1,554.00
Cash-Out Project Manager (76)	1,406.50
Cash-Out Trainer (73)	1,213.95
Policy Analyst (68)	1,022.35
Information Systems Division	
Night Shift Supervisor (64)	926.95
Finance Division	
Supervisor, Food Stamp Accounting (77)	1,478.50
Clerk-Typist II (46)	612.75
Clerk-Typist (50)	676.80
Comptroller's Office	
Supervisor, Warrant Control (77)	1,478.50
Clerk-Typist II (46)	612.75
Treasurer's Office	
Manager (78)	1,554.00
Data Entry Supervisor (56)	768.85
Four Data Entry Operators (50)	676.80
Micrographic Technician (50)	676.80
One to Two Temporary Hires (28)	410.15

SOURCE: Evaluation of the Alabama Food Stamp Cash-Out Demonstration.

TABLE M.7
STATE-LEVEL COUPON-ISSUANCE COSTS
PER CASE-MONTH

Type of Coupon-Issuance Cost	Amount
Accounting (Direct Labor and Fringe Benefits)	\$1,001.08
Auditing (Direct Labor, Fringe Benefits, and Mileage)	345.42
Production of Issuance Listings (Direct Labor and Fringe Benefits)	431.71
Insurance	3,000.00
Storage	10,000.00
Transportation	21,666.67
Total Cost	36,444.88
Cost per Case-Month	0.22 ^a

SOURCE: Evaluation of the Alabama Food Stamp Cash-Out Demonstration.

^aBased on an average statewide monthly caseload in FY1990 of 165,752.

D. STATE-LEVEL CASH-ISSUANCE COSTS

The monthly labor costs for state-level cash issuance (as shown in Table M.8) were calculated as follows:

- **Data Systems Management Division.** The night shift operator starts and monitors the batch processing job for producing the warrants. This operation takes 30 minutes per night for the entire month, regardless of how many food stamp checks are processed. His monthly salary is \$2,008.39. Thirty minutes is 6.25 percent of his time; thus, the monthly direct labor cost is \$125.52. With fringe benefits, that cost is \$156.90.
- **Treasurer's Office.** This office uses eight staff to process 20,000 checks per day. Staff and biweekly salaries are: manager, \$1,554.00; supervisor, \$768.85; data entry operators (4), \$2,707.20; micrographic operator, \$676.80; temporary hires (1.5), \$615.23. Thus, the total is \$6,322.08. Adding in fringe benefits gives \$7,902.60, which is the total biweekly labor cost. Dividing \$7,902.60 by ten days equals \$790.26 per day; dividing \$790.26 by 20,000 (the number of checks processed per day) equals \$0.04 per check.
- **Fiscal Administration--Food Stamp Accounting.** This office did not handle any part of the check-issuance process until the food stamp cash-out demonstration started up; the staff were then brought into the process only during the cash-out demonstration, and only for food stamp checks. The total monthly direct labor and fringe benefits cost for check issuance for this office is \$630.73, estimated as follows:
 - The supervisor checked warrant numbers and dates on the payroll register for food stamp checks and signed the payroll register. Overall, cash issuance took 5 percent of her time; $\$3,203.42$ (monthly salary) $\times .05 = \$160.17$ for the entire month. Adding in fringe benefits gives a total of \$200.21.
 - The clerk took the payroll register for food stamp checks to the Comptroller's Office every day; filled out the bulk mailing form on the first day of the month; picked up the checks; crossed out the permit imprint; bundled the envelopes; and took them to the mailing room every day, for the rest of the month. This took 25 minutes on the first day of the month: 25 minutes = .42 hour; $\$8.46$ (hourly salary) $\times .42 = \$3.55$ for the first day. It took one hour per day for the rest of the month: 8.46×20.67 days = $\$174.87$. $\$3.55 + \$174.87 = \$178.42$ for the entire month. Adding in fringe benefits gives a total of \$223.03.
 - The clerk-typist handled returned food stamp checks (logged check numbers into the check log, entered numbers into the computer, filled in reasons for return); voided warrants; received affidavits; and requested copies of cashed checks. After cash-out had been in operation for several months, the number of issuance problems had dropped to the point that

TABLE M.8
STATE-LEVEL CASH-ISSUANCE COSTS
PER CASE-MONTH

Type of Cash-Issuance Cost	Amount
Data Systems Management Division (Direct Labor and Fringe Benefits)	\$156.90
Treasurer's Office at \$.04 per Check	84.96 ^a
Fiscal Administration Division--Food Stamp Accounting (Direct Labor and Fringe Benefits)	630.73
Comptroller's Office--Warrant Division, Audit Division, and Data Processing (Direct Labor and Fringe Benefits)	199.01
Warrant Forms at \$.01 per Check	21.24 ^a
Information Systems Consultant	433.40
Postage, October 1990	531.00
Total Cost	2,057.24
Cost per Case-Month	0.97 ^a

SOURCE: Evaluation of the Alabama Food Stamp Cash-Out Demonstration.

^aBased on a cash issuance caseload in October 1990 of 2,124.

she was spending only one hour per day on them, at an hourly rate of \$7.66. $\$7.66 \times 21.67 \text{ days} = \165.99 for the entire month. Adding in fringe benefits gives a total of \$207.49.

- **Comptroller's Office.** From Comptroller's Office data, we obtained the cost of warrant forms, which was \$0.01 per warrant. From staff interviews, we estimated the total cost for three employees at \$199.01, as follows:
 - The clerk totals charge-out records to ensure sufficient funds; creates the warrant file and assigns warrant numbers; checks warrants against the tally sheet; and monitors the printing and sealing. This takes 65 to 70 minutes on the first day of the month, and 35 to 40 minutes per day during the rest of the month. 65 to 70 minutes = 1.125 hours; $\$7.66 \text{ (hourly salary)} \times 1.125 = \8.62 for the first day of the month. 35 to 40 minutes = .625 hours; $\$7.66 \times .625 \times 20.67 \text{ days} = \98.96 for the rest of the month. $\$8.62 + \$98.96 = \$107.58$ for the month. Adding in fringe benefits gives a total of \$134.48.
 - After the clerk creates the warrant file, the accountant checks to ensure that the funds were processed correctly. This job takes five minutes per day, at an average hourly salary of \$11.61. Five minutes = .083 of an hour; $\$11.61/\text{hour} \times .083 \times 20.67 \text{ days} = \19.92 for the month. Adding fringe benefits gives a total of \$24.90.
 - The supervisor checks warrants and compares them with the payroll register. This job takes 20 minutes on the first day of the month, and five minutes per day during the rest of the month. Twenty minutes = .33 hour; $\$18.48 \text{ (hourly salary)} \times .33 = \6.10 for the first day. Five minutes = .083 of an hour; $\$18.48 \times .083 \times 20.67 = \31.70 for the month. Adding in fringe benefits gives a total of \$39.63.
- **Software Development Consultant.** The consultant spent about 30 minutes per day on the downline cash-issuance listings. His "loaded" hourly rate (which included such costs as fringe benefits and contractor fees) was \$40 per hour; thus, his cost is $\$20 \times 21.67 = \433.40 .
- **Postage.** We obtained postage costs from the supervisor of Food Stamp Accounting.

E. FEDERAL COUPON-ISSUANCE COSTS

We obtained estimates of federal coupon-issuance costs from Kirlin et al. (1990). Those per-case-month cost estimates were as follows: coupon printing, \$0.17; coupon storage, distribution, and shipping, \$0.02; Federal Reserve Bank fees, \$0.16; and authorizing and monitoring retail stores, \$0.13. The costs were for 1988; to update them to 1990, we obtained the fixed-weighted price indices for federal nondefense purchases of goods and services, from the *Survey of Current Business* (1990 and

1991). The index was 118.0 in 1988, and 127.6 in 1990, for a change of 8.1 percent. An 8.1 percent increase in the 1988 federal costs produces the following per-case-month costs: coupon printing, \$0.18; coupon storage, distribution, and shipping, \$0.02; Federal Reserve Bank fees, \$0.17; and authorizing and monitoring retail stores, \$0.14. Thus, federal coupon costs were \$0.51 per case-month.

F. FEDERAL CASH-ISSUANCE COSTS

The operating and imputed costs of check collection by the Federal Reserve System in 1990 were \$526.1 million (U.S. Federal Reserve System, Board of Governors, 1991). The Federal Reserve Banks handled 18.6 billion checks. Dividing \$526.1 million by 18.6 billion produces a per-check cost of \$0.03.

G. COMPARISON OF CASH- AND COUPON-ISSUANCE COSTS

Table M.9 presents a comparison of per-case-month costs under cash and coupon issuance, summarized from the preceding tables and sections.

H. PLANNING AND IMPLEMENTATION COSTS

Planning and implementation costs totalling \$182,789 were incurred by staff training, software development, policy development, and producing the informational brochure. Table M.10 summarizes these costs, which we discuss in this section.

1. Training Costs

Table M.11 details the state and county labor costs for training, which we estimated as \$25,501.04. With fringe benefits, the cost totaled \$31,876.30. We estimated the mileage and per-

TABLE M.9

COMPARISON OF PER-CASE-MONTH COSTS
OF COUPON AND CASH ISSUANCE

Level	Direct Cost per Case-Month	
	Coupon	Cash
County	\$1.32	\$0.06
State	0.22	0.97
Federal	0.51	0.03
Total	2.05	1.06

SOURCE: Evaluation of the Alabama Food Stamp Cash-Out Demonstration.

TABLE M.10

COSTS OF PLANNING AND IMPLEMENTING
ALABAMA'S CASH-OUT DEMONSTRATION

Type of Cost	Amount
Software Development (Technical Labor Costs)	\$137,025
Staff training (Labor and Per Diem Costs)	37,155
Policy development (Labor Costs)	6,739
Brochure (Printing and Mailing Costs)	1,870
Total	182,789

SOURCE: Evaluation of the Alabama Food Stamp Cash-Out Demonstration.

TABLE M.11

LABOR COSTS FOR STATE AND COUNTY STAFF TO ATTEND CASH-OUT TRAINING SESSIONS

Number of Persons Trained	Type of Staff	Number of Hours of Training per Person	Total Hours in Training	Transportation Hours	Total Hours	Hourly Rate	Labor Cost
12	County DHR directors	8	96	80	176	\$16.98	\$2,988.48
20	Program supervisors	8	160	128	288	13.50	3,888.00
8	Issuance supervisors	4	32	12	44	10.94	481.36
30	Receptionists	4	120	80	200	7.27	1,454.00
30	Cashiers	4	120	80	200	7.62	1,524.00
120	Certification workers	4	480	320	800	10.25	8,200.00
120	Clericals	4	480	320	800	8.13	6,504.00
10	State staff	4	40	0	40	11.53	461.20
350	Total		1,528	1,020	2,548		25,501.04

SOURCE: Evaluation of the Alabama Food Stamp Cash-Out Demonstration.

diem costs incurred by 200 staff from outside Montgomery and Birmingham Counties to travel to Montgomery and Birmingham, as follows:

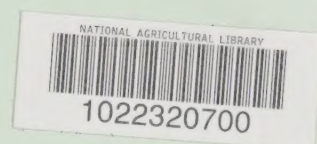
- Mileage: 200 persons at four persons per car = 50 trips. A second trip for approximately 20 directors and supervisors from ten counties = 10 trips. A total of 60 trips, at 200 miles per round trip = 12,000 miles. 12,000 miles x \$.225 (state allowance) = \$2,700 for mileage
- Per diem: \$5 per diem for one trip for 200 people = \$1,000. \$5 per diem for the second trip for 20 directors and supervisors = \$100. \$1,000 + \$100 = \$1,100 for the per diem
- Mileage and per diem: \$2,700 + \$1,100 = \$3,800

In addition, the Cash-Out Trainer spent 78 hours preparing written materials and conducting training, for a total cost of \$1,479.08 (including fringe benefits). Thus, the total training costs amounted to \$37,155.38.

2. Software Development Costs

Software development costs were incurred by both contract and state employees, as follows:

- For the *contract* employees involved in the software development, the loaded hourly rates (that is, such costs as fringe benefits and contractor fees), number of hours, and total cost were:
 - Software Development Consultant: \$40/hour, 1,384 hours, \$55,360
 - Systems Analyst 1: \$25/hour, 692 hours, \$17,300
 - Systems Analyst 2: \$28/hour, 1,384 hours, \$38,752
 - Systems Analyst 3: \$15/hour, 692 hours, \$10,380
 - Systems Analyst 4: \$25/hour, 173 hours, \$4,325
 - Total: \$126,117
- For the *state* employees involved in the software development, the hourly rates, number of hours, and total cost were:
 - Systems Analyst 1: \$15.17/hour, 260 hours, \$3,944.20
 - Systems Analyst 2: \$15.94/hour, 300 hours, \$4,782.00
 - Total: \$8,726.20. With fringe benefits, total: \$10,907.75



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